

Sustainability Pressure

A field study investigating the Real-estate and Construction industry



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Abstract

Introduction and Purpose: One of the major challenges within most industries today is the increased sustainability-related pressure. The Swedish real-estate and construction industry is furthermore deemed as a significant polluter, both domestically and internationally. Sprung, primarily, from the European Union's action plan and the Paris agreement, increased pressure from a variety of stakeholders has emerged that firms subsequently have been forced to adhere to. To cope with the increased pressure firms are positioned with the choice of either actively or proactively approach the pressure. Congruent with the real-estate and construction industry's financially driven approach, which historically has been rather reluctant of adopting non-core activities, suggest a reactive approach has been the predominant one. However, in line with the emerging trend of digitalization, opportunities of adopting a more reactive approach are perhaps possible.

Methodology: The initial step of this report was to conduct a pre-study, which aimed to provide the authors with general information about the industry to efficiently construct a scope and structure. A series of interviews were subsequently conducted to gather empirical data related to the different sustainability-related pressures along with the industries strategic responses to the various pressures.

Theoretical Framework: The theoretical framework of this report revolves around the two well-researched areas of institutional theory and stakeholder theory. These two theoretical concepts are used in tandem to explain the pressure within the real-estate and construction industry. The Wang et al. (2020) model is furthermore used to investigate the response related to the pressure by characterizing various responses as either reactive or proactive.

Empirical Findings and Analysis: From the empirical findings it was found that pressure of sustainable transformation originates from a variety of sources, such as Internal stakeholders, Customers, Suppliers, Regulators and Capital Providers. The pressure has also seemingly increased during recent years, which has subsequently positioned firms within the real-estate and construction industry to make strategic decisions to adhere to the pressures. Digital tools have been found to be an important aspect for firms to adopt a more proactive approach towards managing the increased pressure. A limiting factor was, however, that a proactive approach was often associated with high costs and being resource consuming.

Conclusion: The concluding remark of this investigation is contextualized through an alteration of the Wang et al. (2020) model. Pressure from internal stakeholders and market pressure (supplier and customers) has been deemed to be managed through proactive strategies. Finally, Coercive (regulative) and Capital Providers strategic responses were generally characterized as being reactive.

Keywords: *Building Information Modeling, Digitalization, EU-taxonomy, Institutional Theory, Proactive, Reactive, Stakeholder theory, Sustainability Pressure*

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1 Introduction

This chapter present the background of this investigation along with a problem discussion that motivates the study. The purpose and research question are raised in tandem after having considered potential gaps in the current academic literature.

1.1 Background and problem discussion

One of the major challenges within most industries today is the increased pressure of business to transform their business operations to become more sustainable (Meixell & Luoma, 2015). From a Swedish market perspective, the real-estate and construction industry is one of the major polluters. This can be illustrated by 11.8 million tons of carbon dioxide equivalents (CO₂-equivalents) being interlinked to their domestic emissions, which ultimately amounts to 21% of all emissions of CO₂-equivalents in Sweden. By adopting a more global approach, the Swedish real-estate and construction industry is responsible for an additional 5.8 million tons of CO₂-equivalents outside of the Swedish borders by importing materials. This in combination with the domestic emissions amounts to 17.7 million tons of CO₂-equivalents for the industry alone (Boverket, 2021a). As illustrated by the rampant emission of CO₂-equivalents a global and nation-wide demand for regulatory actions have emerged. This demand has furthermore been recognized and the European Union has constructed an Action plan which is spun from the vision of the Paris climate agreement along with the corresponding 17 sustainable development goals. This is, moreover, argued to have the potential to help the European Union to augment sustainable investments ultimately to fully incorporate and unify the logic of the European green deal in all industries and corresponding firms (European Commission, 2021).

The increased pressure of sustainable transformation is often related to a variety of stakeholders who exert different types of pressure (Meixell & Luoma, 2015). Their significance is also mentioned in Alrazi et al. (2015) who highlights that stakeholders have an active role in influencing and steering firms towards more sustainable business operations. The importance of stakeholders is built upon the logic that reputation matters and that firms must adhere to stakeholders to ultimately be successful. The various stakeholders who exert pressure could be subcategorized into Internal, Market, Regulatory and Capital Provider pressure. The internal pressure stems from stakeholders within the organizations through individuals such as managers and employees (Persson & Olander, 2005). Employees, for example, have gradually taken an increased interest in sustainability related matters and have therefore begun taking into consideration that an employer sustainability engagement is congruent with their own belief. Employers have therefore been pressured to include sustainability, to a more significant extent, to attract top-level talent and thereby stay competitive (Davis-Peccoud, 2013). Market-oriented pressure originating from stakeholders such as suppliers, customers and industry association has also seen increased levels of importance, whereof Gong et al. (2019) argues it to be an effective type of pressure in generating sustainable business transformation. Customers have also progressively begun

requiring real-estate firms to have certificates of their buildings that hope to ensure that they are sufficiently sustainable (Hoejmose et al., 2014). As previously mentioned, regulatory frameworks related to sustainability have seen significant changes in congruence with new directives emerging that ultimately has tightened the regulatory environment and enlarged the pressure exerted towards businesses. The current regulatory environment is mostly associated with the EU-taxonomy but other notable directives that contribute to the present regulatory framework are certificates, Boverkets climate declaration and other accounting-related directives (European Commission, 2021; Hoejmose et al., 2014; Boverket, 2022). Pressure imposed from capital providers is associated with them having become more meticulous in their process of providing capital by sustainability aspects receiving more attention. In combination with this, capital providers have received a fiduciary role in society to include sustainability in their capital allocation process, which has substantially increased pressure towards firms to become more sustainable if they desire to receive capital. (Eccles & Klimenko, 2019)

To manage the sustainability-related pressure experienced by the real-estate and construction industry, a proactive or reactive strategic approach are suitable routes to manage the pressure, as per Wang et al. (2020). An emerging trend and tool to, arguably, have a proactive approach is digitalization and moreover the adaptation of digital solutions to improve information accessibility and visualization as this enables more efficient monitoring and decision making (Ekman et al., 2021). Despite the opportunities that digital solutions present, the real estate and construction industry is deemed relatively conservatory in adopting new innovations and strategies, which is illustrated by three out of four real-estate firms lacking a digital strategy as late as 2018. The industry has also been ascertained to be least developed, in terms of digitalization and digital transformation among a wide set of industries (Fastighetsägarna, 2018). Additionally, the real-estate and construction industry has historically been characterized by being heavily financially driven, where going beyond what is required in terms of sustainability related opportunities has been rare. Where this course of action has been derived from the logic that the firms have been unable to relate the ESG activities to actual financial returns (Falkenbach et al., 2010). This is arguably consistent with a reactive approach, where one would rather develop and be innovative when being pressured to do so rather going beyond what is minimally required of you to generate possible advantages. This is of interest to study and investigate as it would be beneficial to the real-estate and construction industry, and possibly other adjacent industries, to gather insights on how various pressures spark reactive response. These insights could subsequently be useful to adopt and formulate a proactive approach more efficiently. An investigation of this character is also relevant given the increased sustainability-related pressure the real-estate and construction industry are experiencing along with the how to strategically manage the increased pressure.

1.2 Purpose and Research Question

As previously established the real-estate and construction industry is responsible for a significant number of CO₂-equivalent emissions, both domestically and internationally. In

congruence with this, additional pressure has been exerted towards the industry from a variety of different stakeholders with the purpose to commence a sustainable business transformation. The industry has also historically been heavily driven upon financial returns with little consideration to non-core business activities such as ESG initiatives compared to other industries. This paper will thus aim to identify and explain the different pressures that the industry experiences while simultaneously categorizing them into subsections. To make a theoretical contribution the experienced pressure will be contextualized and explained with the help of two well researched theoretical frameworks, being institutional theory and stakeholder theory. To extend our theoretical contribution, the strategic response related to the experienced pressure will be analyzed to determine whether a proactive or reactive response is utilized. The purpose of this subcategorization is to distinguish between the responses in relation to institutional theory and stakeholder theory. Whereof the institutional theory has historically been related to a reactive approach, which is something the real estate and construction industry has been rather unanimous with given their unwillingness to adopt activities that fall outside their core operations. While conversely the proactive approach is relevant to investigate as digital capabilities have made proactive efforts more accessible and thereby an efficient strategy to adhere to the increased pressure set by stakeholders. To fulfill the purpose of this investigation a field study will be carried out, which will include real-estate and construction companies along with external industry experts to be able to capture the current and future state of the industry. This study thus aims to capture the pressure that is exerted towards the real-estate and construction industry and the corresponding strategic proactive or reactive response that they adapt to cope with the pressure.

This investigation will hence be based upon the following research question:

- *How are sustainability-related pressures influencing firms within the real-estate and construction industry towards a reactive or proactive strategic response?*

2 Conceptual Framework

This chapter present an overview of the various theoretical frameworks used in this investigation. This firstly includes an exposition of the institutional theory and stakeholder theory. These two theories are finally concluded in a combined theoretical model, being the Wang et al. (2020) model, that facilitates the categorizing of sustainability-related pressure and corresponding strategic responses.

The conceptual framework of this report is a two-parted discussion of institutional theory and stakeholder theory which will ultimately lead to a discussion of how these two theoretical concepts in tandem relate to the research question in this report. The institutional theory will be used as a foundation for how sustainable pressures are put on the industry and how firms theoretically are coping with them rather passively. The stakeholder theory will instead add the market perspective of institutional pressure and thus describe a more proactive approach to meet institutional pressures from various stakeholders. Additionally, the stakeholder theory will describe different stakeholders that are affecting the real-estate and construction sector towards more sustainable processes. The mentioned stakeholders will be described through their sustainable pressure and how firms historically have been dealing with their different pressures. Lastly, the institutional and stakeholder theory will be discussed in tandem through the theoretical model of Wang et al. (2020) which aims to generate a more profound picture on the different sustainable pressures that might affect the industry, and further a discussion related to whether the responses to the increased pressure could be distinguished as reactive or proactive. The model is in line with the scope and research question of this report and will further be tested in the discussion of this report.

2.1 Institutional Theory & Institutional Pressure

The theoretical framework of institutional theory is a core concept to understand the sociological aspects of social structures. The social behavior within the institutional theory is described through norms, schemes, rules, and routines (Scott, 2005). DiMaggio and Powell (1983) further developed and added additional perspectives to the theoretical framework of institutional theory by investigating what makes organizations develop similar characteristics. The authors discuss how organizations are expected to have rational behavior and thus abide by the institutional context and its corresponding prescription of what is appropriate business behavior to ultimately gain legitimacy. It is moreover explained that when a set of organizations emerge and construct a field of organizations rational actors will over time mimic each other's traits when individually attempting to transform themselves. The authors describe that this paradox is the result of isomorphic processes and pressure. These processes and pressures can furthermore be subcategorized to three different categories, which are normative, mimetic, and coercive isomorphism or pressure. *Normative pressure* is explained to primarily originate from professionalism as individuals within organizations have similar expertise and knowledge because of their education. The other primal source of professionalism is related to the growth and elaboration of professional networks that, like educational impact, creates a unified cognitive context that facilitates similar organizational

traits given the inhabitants of the organization. *Mimetic pressure*, however, stems from uncertainty within the industry and organization that sparks a willingness for transformation that leads to mimetic behavior. The uncertain behavior that instigates the willingness to transform and, in these situations, mimic industry peers is, according to the author, said to be related to poor organizational technologies and ambiguous internal objectives. Finally, *coercive pressure* is related to both formal and informal pressure that is applied from organizations such as regulators and other entities, which the organization subsequently is expected and sometimes obliged to adhere to.

Previous literature has further connected these institutional pressures to firms' engagement in sustainability and environmental obligations. Hoffman (2001) argues that firms' engagement in sustainable actions has a direct connection to the isomorphic pressures they receive from external stakeholders. Further, the managerial sensitivity, i.e., the managerial tendency to react on sustainable information, has a direct effect as response to isomorphic pressures which in turn leads to a sustainable stimulation and adaptation by the firm. From this argument, Daddi et al. (2020) investigated if the different isomorphic pressures, coercive, normative, and mimetic, had different impact on the managerial sensitivity regarding sustainability. In their empirical research they found that coercive pressure in fact had a negative correlation on the sensitivity, whilst normative and mimetic pressures had a positive correlation with the sensitivity. The main argument for the result of a negative impact by the coercive pressure stems from the fact that managers that are forced to act in a certain way might be less interested in the development of sustainable tools, which could lead to suboptimal management. However, the authors also argue that a comprehensive, understandable, and easily applicable regulation might instead have a positive impact if the managers understand the underlying intentions with it. In terms of the normative and mimetic pressures the managers were more willing to cope with these as their view towards these pressures were more voluntary. From a normative point of view, the pressures originating from certificates, such as the ISO14001, are a major aspect for managerial sensitivity and adaptation towards climate change strategies. This is due to the fact that firms that are certificated most often want to stay within the certificate's boundaries due to the positive outcomes of being certificated. Further the demands to be an ISO-certified firm is increasing which requires improvement regarding the firm's sustainable performance.

Oliver (1991) provides a useful perspective in relation to institutional pressure by attempting to identify various strategic responses utilized by organizations. The strategic responses are moreover stated to firstly be dependent upon the context of organizational behavior. This context is structured around external demands and expectations, which are argued to be of necessity for organizations to survive in the long run. Related to the characteristics of the contextual setting the underlying motives behind organizational behavior also influences strategic decision. These motives are primarily related to organizations endeavors towards stability and legitimacy. Hojmosse (2014), like that of Oliver (1991), argues that firms' responses to institutional pressure might either simply be passive acquiescence or a more strategic adaptation, which could be translated into a reactive or proactive response. An important aspect in the type of responses was the general market forces but also firm

constituencies, which in practice could be supplier or customer requirements exerted towards the firm. These pressures in combination construct and influence a firm's propensity to react to the institutional pressure that the firm is subject to. Oliver (1991) also highlighted the importance of stability and legitimacy and argued that they originate from organizations having a self-interest that helps manifest firm characteristics. The self-interest is, however, two-sided as they are most often influenced by society's expectations and demands. The author, moreover, discusses firms' willingness to adhere to external pressure and its corresponding effect on internal efficiency. Strategies related to the external pressures will be highly dependent on the objectives of the demands and expectations that are being exerted towards the organization. According to the author, there are generally two ways of responding to institutional pressure. Firstly, the firm could conform to the pressure which however could be suboptimal since this decreases the firm's ability to be flexible, and hence could create a stiff and rigid organizational structure. In contrast to conformity to institutional pressures, the firm could instead choose to neglect the pressure, which increases the firm's flexibility and possibilities but might come at the expense of decreased social acceptance and popularity of the firm.

2.2 Stakeholder Theory

The stakeholder theory emerged in 1984 from the professor R. Edward Freeman to create a theoretical framework that enabled a broader and more applicable understanding for managers on how the firm is affected by both internal and external pressure from stakeholders. The concept of the theory originates from Freeman's (1984) interpretation of a stakeholder as "*any group or individual who is affected by or can affect the achievement of an organization's objectives*". This could for instance be customers, employees, suppliers, banks, or society in general. More practically, the framework suggests that managers need to actively manage the business environment and its relations to satisfy all types of stakeholders, and ultimately have long-term success.

2.2.1 Stakeholders within the Real-Estate and Construction Industry

2.2.1.1 Internal

When analyzing the different stakeholders and their impact on the firm's sustainability management, one must first assess the impact from the internal stakeholders. Internal stakeholders could be categorized as managers, employees, and board of directors for example (Persson & Olander, 2004). From a shareholder perspective, Testa, Boiral and Iraldo (2018) found that pressure to be sustainable would lead to a direct effect on the firm where environmental strategies and systems would be more easily incorporated. In turn, the shift for the firm towards green strategies often led to competitive advantages which increased the performance of the firm along with the value of the firm. Alt et al. (2015) addresses another important internal stakeholder for environmental change, namely the employees. In fact, they are argued to have a direct impact on the firm's sustainable performance which makes it possible to see a positive correlation between employee sustainability engagement and adoption of environmental strategies within the firm. Davis-Peccoud (2013) furthermore

mentions that employees have begun valuing a firm's sustainability integration in the process of choosing an employer. This has in turn resulted in a pressure towards the hiring firms as they are forced to adhere to this pressure to stay competitive in relation to industry peers and thus attract top-level talent. Even though the employees and shareholders have a major impact on the firm's sustainability performance, Wang et al. (2020) finds evidence that among all stakeholders, both internal and external, managers could be seen as the main driver, especially since they are directly involved in the development and implementation of sustainability strategies. Eiadat et al. (2008) further stresses that managers with a sustainable focus will direct more money and resources towards this cause which in turn will have a positive impact on the results of those strategy implementations.

2.2.1.2 Customers

As debated by Hoejmose et al. (2014) and Gong et al. (2019) down-stream pressure originating from customers has historically been one of the most predominant and effective pressures to spark a willingness to integrate a sustainable perspective with the already existing practices of a business. Moreover, the requirements that composes the pressure originating from customers may significantly differ depending on the customer in question as some requirements are formal (e.g., certification oriented) while others are more informal and related to norms and expectations within the industry (Hoejmose et al., 2014; Campbell, 2007). Granly and Welo (2014) in congruence with Hoejmose et al. (2014) found evidence that certification is heavily customer-driven, where they saw that the main benefit that firms received in the process of earning certification was that they pleased their customers' demands. While simultaneously the pressure from customers of having certification is dependent on the logic that certifications yield security. Despite the effectiveness that customer pressure has on firms, it suffers if customers are not able to meet the requirements that increased sustainable performance results in, such as increased rent. This could thus ultimately lead to a suboptimal situation where insufficient rewards are given to firms that increase their involvement in sustainability activities. The insufficient rewards could lead to an incentive issue where firms might be somewhat unwilling to adopt a sustainable approach due the lack of upside (Gong et al., 2019).

2.2.1.3 Suppliers

Even though it is hard to find any evidence that suppliers actively are managing their customers, i.e., that the firms within the real-estate and construction industry make efforts towards an increased sustainable performance, their role is still key to the overall sustainability performance within the supply chain. Chen et al. (2019) found empirical evidence that supported the inclusion and collaboration with suppliers related to sustainability-oriented strategic actions, which in turn will increase the sustainable performance of both the firm itself, but also permeate the entire supply chain. It is conversely stated that the option of actively keeping suppliers out of the equation could lead to an increased sustainable risk and consequently an overall decreased sustainable performance. Gualandris and Kalchschmidt (2016) supports this notion by arguing that a thoroughly managed supply chain increases the sustainable performance, especially since the cooperation

increases the trust between the supplier and buyer. They further found additional evidence that suppliers sometimes have problems with leveraging their sustainable performance and thus the significance of trust and a well-developed relationship between the parties increases.

Lynch (2021) argues that suppliers within the real-estate and construction industry might have a restricting effect on the adaptation of sustainability and digitalization due to the lack of information availability. In terms of the ecological and social factors affecting sustainability, just over 15% of the real-estate firms mentioned that they had full visibility of their suppliers' processes. Smart Built Environment (2018) confirms this argument when they state that the industry both have long supplier chains, and that a lot of information still is gathered through analog procedures. There is a consensus within the supply chain that digital tools would simplify and improve the information sharing process, however, there still lacks a joint view of which party should be the driving force in a digital transformation. From suppliers' point of view the digital transformation should be managed and developed by the real-estate owners, since they are the ones in need of digital sustainability-oriented information within the supply chain. The importance of information sharing, both to be able to have successful sustainability and to be competitive, is discussed in the report by Woo et al (2015) who discussed how supplier communication impacts green performance and integration. In their paper they found that information sharing within the supply chain will have a positive impact on both the environmental collaboration, green cost reduction, which in turn will lead to a more competitive firm. This solidifies the importance of a collaboration within the supply chain, especially through digital tools since they are main drivers of information accessibility which in turn, according to Woo et al. (2016), should lead to an improved sustainable performance.

2.2.1.4 Regulators

Governments as another important stakeholder and could be seen as having a coercive power to drive changes and transformations through laws, regulations, and the creation of markets. Further, from a regulating point of view, sustainability is undeniably becoming more important, which is not least evident with new global directives emerging and being adopted world-wide. This, for example, includes the Paris agreement and the European Green Deal that is brought forward by the United Nations and the European Commission respectively. The common denominator for the two directives is that their purpose is to shed light on the importance of sustainability and establish sustainable business principles to ultimately have long-term positive impact on the global environment (UNFCCC, 2021; European Commission, 2021). In relation to these directives and the institutional pressure that they evoke, Daddi et al. (2019) discuss the importance of climate mitigation and firm's corresponding adoption of relevant strategies. The Paris Agreement and European Green Deal can furthermore be subcategorized as normative pressure from governmental regulators and whereof the authors argue this type of pressure is efficient to enable voluntary commitments by firms towards proactive climate change directives. However, what is arguably spun from the holistic directives and objectives established by the United Nation

and European Commission is the more coercive pressure originating from regulatory frameworks such as the EU Taxonomy

Osburg and Lohrmann (2017) addresses that digitalization could be one of the major drivers for firms to be able to reach the UN goals of the Paris Agreement. Nikmehr et al. (2021) strengthens this argument by addressing the need for digital innovations, such as BIM, to be able to meet sustainable goals and demands from outside pressures. Lynch (2021) furthermore found supporting evidence to Nikmehr et al. (2021), which identified that almost half of the respondents in her study had begun using digital tools to enable increased ability to visualize sustainable information. Moreover, the application of digital tools could benefit a reactive response to regulations that require the collection and presentation of data such as in the EU taxonomy, as in line with the argument by Osburg and Lohrmann (2017).

2.2.1.5 Capital Providers

An additional important stakeholder that influences a firm's sustainability actions is capital providers, categorized as banks and other credit institutes. Pelozo et al. (2012) states that capital providers are important to adhere to as the services of which they provide are essential for the development of the industry. Capital providers pressure thus stems from firms being obliged to present information about the firm's sustainable performance through sustainability reports, where the reports have received increased demands and requirements to reach a certain level of quality and amount of relevant content. The authors also argue that firms with highly developed sustainable performances could hence be awarded a lower risk profile and thus both the cost of debt and capital will decrease for the firm, which results in cheaper and more accessible capital. Unruh et al. (2016) further strengthen the advantages associated with engaging in sustainability-oriented action as it could improve the capital provider relationships. The report furthermore presents that 60% of all capital providers believes that a good sustainability performance reduces overall risks within the firm and close to half of all capital providers states that they are ready to drop investments in firms with an unsatisfied sustainability performance. Stakeholders, such as capital providers, are in this case argued to become gradually more aware of trends such as digital technology as an efficient tool more proactively incorporating sustainability through smart data utilization that adds value to the process of allocating capital. For the Real-estate and Construction industry this in turn hopes to facilitate more “green buildings” along with capital providers being more inclined to pay a premium for assets that have a long-term sustainability strategy and, conversely, pay less for assets that have poor sustainability performance. To conclude, PWC (2020), argues that the real-estate and construction industry must realize that sustainability is a key value driver and if neglected, viewed as a risk by capital providers that may subsequently harm the firm's ability to attract capital.

2.3 Institutional pressure and stakeholder theory

Even though institutional theory and stakeholder theory in similar ways describe a reaction to an outside pressure, there is a major difference between them. Generally, institutional theory describes the reactions of an outside pressure as rather passive, as could be seen in Oliver (1991). The author argues that the adaptation to these institutional pressures is through passive adherence which generates a stiff and rigid organization, or through actively opposing the pressures and thus risking being less popular in the public opinion. However, when including the ideas of the stakeholder theory in congruence with institutional pressures one could argue that an institutional pressure could be dealt with more proactively by focusing on stakeholder satisfaction. The main ideas of the stakeholder theory, originally developed by Freeman (1984), is to include a more holistic view where all stakeholders that affect or are affected by the firm should be handled carefully and managers will benefit from satisfying their needs. Considering that the real-estate and construction industry also being categorized by primarily having financially oriented logic makes it more applicable to include both the institutional theory and stakeholder theory to address whether firms within the industry are treating sustainability pressure passively or more proactively to be able to satisfy the stakeholders needs.

To be able to finalize and conclude the conceptual framework the theoretical framework of institutional pressure and the stakeholder theory will be discussed in a joint model. In a meta-analysis by Wang et al. (2020) that concerned stakeholder pressure and corporate environmental strategies they created a model that connected both the institutional pressure and stakeholder theory which derived four different kinds of stakeholder pressures which could be seen in Figure 2. Wang et al. (2020) argues the main benefit of including both the institutional and stakeholder theory is that it includes the institutional norms of coercive, normative, and mimetic pressure with the addition of market aspects of the stakeholder theory. The perhaps most advantageous part of using this model, excluding the fact that it creates a joint model of the theoretical frameworks at play in this investigation, is that it mitigates the deficiencies that the Stakeholder and Institutional theory have in their solitude. Whereas the insufficiency lies in that the institutional theory generally covered a reactive response and the stakeholder theory being more proactively driven by managing pressure from stakeholders.

The first driver of environmental sustainability-related development through a stakeholder pressure is, according to the authors, the *internal pressure*. The internal pressure stems from an internal governance by stakeholders such as the shareholders, board of directors, managers, and employees. The paper finds several different pieces of evidence that an active internal sustainable pressure correlates with a positive impact on the firm's sustainable performance. The second stakeholder pressure that affects sustainable strategies within the firm is the *market pressure* that originates from suppliers, customers, competitors, and industry associations for example. The firms within an industry thus need to cope with different norms, trends, and standards to be able to keep up with the competition within the market. Thirdly, the *coercive pressure* from governments is an additional stakeholder

pressure that emerges from, for example, the establishment of green regulations, taxations, and punitive actions. In addition to pure regulatory actions, administrative power could also be seen as a coercive pressure through for instance green certifications that drives the firm's behaviors towards green strategies. Lastly, the *social*, or normative, pressure from the media, the public, and NGOs mainly drives the awareness of the sustainability issue, which in turn influences decision makers. A strong awareness will also lead to great effort from the firms and vice versa. The social pressure also works as governance of the firm's sustainable strategies (Wang et al., 2020). In addition to the stakeholders mentioned in Wang et al. (2020), the capital providers could be seen in the previous chapter to have an important role related to the sustainability pressure within the industry in accordance with Pelozo et al. (2012).

To relate the Wang et al (2020) model to the research question of this report, the different stakeholder pressures will be examined in relation to the industry itself to be able to analyze the effects that different stakeholders have on the sustainable information processing and subsequently strategy implementation within the firm. The corporate environmental strategy, as can be seen in Figure 2, intends to visualize the extent to which the firms within the industry react to the stakeholder pressures. Wang et al. (2020) further describes the Corporate Environmental Strategy as the series of strategic events, such as decreasing energy consumption, waste management, and an introduction to environmental management systems. The reactive response to stakeholder pressure is described as rather negative, where the aim is to do the bare minimum to satisfy the various stakeholders and gain legitimacy. A proactive approach is responding to the various stakeholder pressures through both creating new business opportunities and capitalizing on them in order to increase the sustainable performance of the firm. The proactive approach is, as earlier mentioned, more focused on the stakeholder reaction and thus is a more active approach related to the stakeholder theory and how to deal with those pressures. This study will attempt to gain knowledge of both the pressure and response through the theoretical power of this model, however, will also aim to determine whether all stakeholder pressures will lead to either a proactive or reactive environmental strategy, or whether the different pressures are generating different responses. To summarize, from the perspective of institutional and stakeholder theory, reactive responses are characterized as doing what the outside world expects of you. Proactive responses are, conversely, related to strategic responses to adapt to a pressure and either attempt to influence the pressure or go beyond the expected bare minimum of adhering to the pressure.

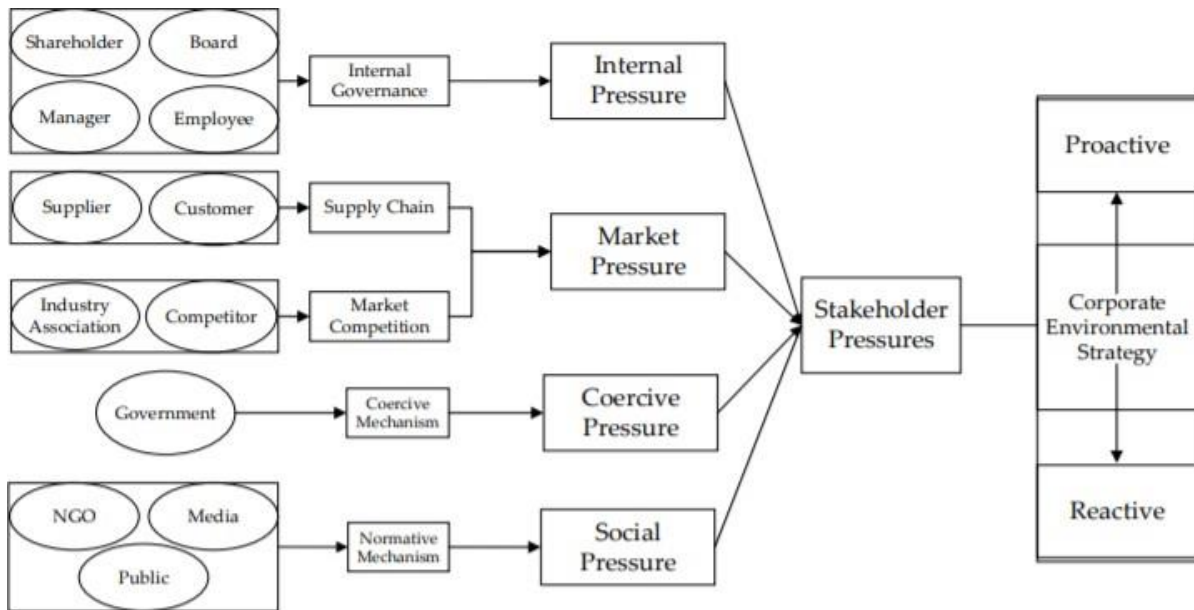


Figure 1: Wang et al., (2020) Model

To bridge this closer to the need for digitalization to meet sustainability requirements, one could argue for two different scenarios where the outcome of using digital tools might stem from the objective the firm is trying to achieve. If the firm tries to act more sustainable, digital tools might encourage a sustainable strategy development, and thus generate a proactive environmental strategy response (Nikmehr et al. 2021; Ordieres-Meré et al. 2020). On the contrary, digital tools could be used merely to collect information (Ravald, 2021) to be able to meet the minimum requirements of for instance the EU Taxonomy to present facts that coexist with societal expectations of outside stakeholders which is more closely related to the reactive response in the Wang et al. (2020) model. Additionally, given the technological possibilities emerging from the digital transformation, such as big data, creates a more efficient foundation for decision makers to meet and enforce sustainable requirements (Ullah et al., 2018). The, previously mentioned, inseparability between digitalization and sustainability highlighted by Ekman et al. (2021) provides additional support in favor of the importance of developing digitalization related capabilities to meet sustainability requirements to ultimately adhere to the pressure imposed by various stakeholders. Osburg and Lohrmann (2017) also argues that firms that can drive sustainable activities with the empowerment of the digital tools available generate additional value for both the firm and society. The different possibilities of using digital tools to meet sustainability requirements is thus of interest to study since this is an ever-changing subject and will be an important denominator to whether firms are using a proactive or reactive approach to the sustainable pressure.

3 Method

This chapter includes a description and motivation of the methodology adopted to fulfill the purpose and answer the research question of this report. The chapter presents the different types of sources used to gather empirical data along with how the data is ultimately analyzed. It also discusses possible limitations and biases and how they should be potentially managed.

3.1 Research Design

The research design of this paper is developed with characteristics of “Triangulation and mixed methods” as presented in Collis and Hussey (2013). This research design is described as a usage of several sources and methods to be able to reduce bias and increase credibility in the research. This specific paper used the triangulation of data and method, meaning that different sources, both interviews and secondary data, were used to be able to increase the validity and reliability of the data. The authors argue that when attempting to triangulate data, it is also valid to triangulate the overarching methods, which is the reason that the information collected for this investigation was gathered through both primary and secondary sources. The primary sources did, as described later in this report, stem from interviews with both experts within the industry of real-estate and construction, experts on legal activities, together with capital providers to grasp a better and broader understanding on both the outside pressures on the industry and how the industry itself strategically react to these pressures. The research design of the report can furthermore be characterized as a field design within the real-estate and construction industry, which included interviews of relevant representatives that were complemented by secondary data. According to Ferreira and Merchant (1992), a field study is categorized as an in-depth study of a specific field where the researchers have close contact with persons within the field to generate primary data. In addition, the research was not fully structured from the beginning and thus evolved together with the data collection. In compliance with these thoughts, this research aimed to follow the structure of a field study to generate relevant and viable results and conclusions.

3.1.1 Firm Collaboration

This investigation was carried out in collaboration with Zynka Bim AB (Zynka), which is a consultancy firm specialized towards the real-estate and construction industry in Sweden. The firm develops, innovates, and challenges the industry status-quo with the conviction that digitalization of every dimension is of paramount importance in shaping the future of business. This transformation is carried out by providing firms with extensive grounds for decision making through the utilization of business intelligence. They thereby assist firms in shaping their vision and business strategy through digital models that enable analysis, visualization, and forecasts of relevant real-life business conditions (Zynka BIM, 2021). The point of collaborating with this consultancy firm was firstly due to their business model being anchored in digital tools and applications, which could be related to both reactive and proactive strategic responses. Secondly, they were also able to guide the investigation towards adequate sources and interviewees to increase the quality of this paper. In addition, the close collaboration with a firm within the market also opens several opportunities that

otherwise might not have been possible to find, which in turn will add to the credibility and quality of the report. However, it is important to understand that a close collaboration could lead to biases that affect the results of this study. To be able to avoid any biases, approximately half of the respondents were chosen without any connection to Zynka with the purpose of broadening the understanding of the topic, both related to firm strategy but also on behalf of digital tools. Additionally, the more specific answers from the respondents were cross-checked with the other respondents to either strengthen or question their reasoning to be able minimize false statements in the analysis of this report.

3.2 Research Process

3.2.1 Pre-study

Due to the authors somewhat limited previous knowledge in the sphere of sustainability-related pressure and corresponding strategic response within the real-estate and construction industry a short yet comprehensive pre-study was conducted. The firm collaboration with Zynka was a key piece in the pre-study as representatives from the company were included to provide the authors with their perspective as consultants. These interviews did not have a clear structure of questions to extract empirical data but rather an agenda to find the motivation for the study while simultaneously providing the authors with a broad base of knowledge of the current state of the industry context. Although this kind of pre-study may provide the authors with necessary information and knowledge to carry out the investigation one may though be wary about possible author bias that may emerge. This bias could thus influence the investigation as the authors would have prior experience and perspectives that could cloud the interpretation and analysis of the information gathered. This was, however, mitigated by interpreting multiple secondary resources to complement and confirm the information that is gathered throughout the interview process. In addition to secondary sources, the authors relied on the theoretical framework rather than the pre-study to decrease the risk of being biased.

3.2.2 Collection of Primary Data

The methodological structure of this investigation was of a qualitative character where interview sessions were held with representatives from Zynka as well as key representatives within the real-estate and construction industry. The interviews thus intended to provide information from both the perspective of consultants within the construction and real-estate industry, being the representatives of Zynka, and the actual representatives within construction and real-estate industry. The process was to gather information on how the construction and real-estate industry perceive sustainability-related pressure along with their strategic response. Additionally, capital providers, such as key individuals at banks, and experts of the regulatory fields were interviewed to be able to answer the research questions from an outside perspective. These individuals broadened the understanding and gave additional information that were key to be able to analyze the outside pressure exerted towards the industry. The ability to interview consultants, representatives from the real-estate and construction industry and other field-specific experts ultimately accumulated a holistic

perspective that enabled an increased and more efficient ability to answer the research question.

The interviews were of a semi-structured character to ensure that a structure existed throughout the interviews but to also have flexibility for both the respondents and interviewers. There are however limitations with semi-structured interviews, as described by Collis and Hussey (2013), as they are time consuming and require extensive poise and smartness by the interviewers to ultimately be successful. This can however be mitigated by thorough planning and preparations by the interviewers. The authors also mention that for semi-structured interviews to be fully efficient it would be necessary to interview the entire population, which for obvious reasons will not be possible given the magnitude of the number of interviews it would require given the time constraints. As a mitigating action to this dilemma various representatives within the industry, such as external experts, consultancy firms, employees with managerial positions within the industry and finally capital providers provided a sample that hopes to reflect the population to the best possible extent.

The interviews were initially planned to be held face-to-face, which also is the preferable method according to Collis and Hussey (2013), as it provides comfort for the respondents and thus information is more efficiently gathered. It additionally provides the ability to interpret the respondents body language as this could also provide relevant information. The interviews were however instead held solely digitally through various communication applications. This was done digitally as several of the interviewers preferred this method and that Covid-19 restrictions still were present during the empirical data collection. While Collis and Hussey (2013) argue in favor of face-to-face interviews, digital meetings do, however, have its advantages as it gave us the ability to interview respondents that otherwise would be difficult given travel expenses and time. In congruence with the semi-structured interviews the intention of the investigation was to adopt the laddering technique, which is explained by Collis and Hussey (2013). The laddering technique purpose is to guide the respondents throughout the interview by peeling layer by layer of information by asking relevant follow-up and clarifying questions to ensure that sufficient information is gathered.

The interview sample was chosen through the lens of the earlier mentioned theoretical approach of Wang et al. (2020), where the four different pressures (Internal, Market, Coercive, and Social) worked as a foundation for how firms should manage sustainability pressure through either a proactive or reactive corporate environmental strategy. In the section "Role in Report" in Table 1 all the interviewees were categorized into one or several sections with regards to their role in the report given their profile. The respondents' respective firms are not mentioned by name, excluding the representatives from Zynka, to ensure anonymity for those that participated as respondents. The internal pressure was answered through interviewees of different roles from a variety of firms within the real-estate and construction industry. They provided the perspective on how they are experiencing the pressure originating from their stakeholders along with the corresponding strategic response. Additionally, the same interviewees provided their opinion on how their respective firms

address the pressure through their corporate environmental strategies. The corporate environmental strategies are also answered by the BIM-Coordinator who gave answers on how digital solutions could be used to address the pressures and challenges. Further, the same interviewees, together with the Energy Consultant and the Sustainable Business Strategist (Bank) addressed the market pressure from customers and suppliers. The coercive pressure was additionally answered by the Certifications Specialists and the Legal Consultant to be able to give insights to which regulative forces are the most prominent related to an increased sustainable pressure. The added Capital Provider pressure, as can be seen in “3.2.4 Analysis of Data”, was mostly answered by the Sustainable Business Strategist, who works at a large Swedish Bank, along with the representatives from the real-estate and construction industry.

Title in report, <i>Firm</i>	Role in report	Date and Duration	Interview Style
BIM-coordinator, <i>Zynka</i>	Environmental Strategy	18/3-2022, 35 min	Digital meeting via Microsoft Teams
Energy Consultant, <i>Small energy consultancy firm</i>	Market Pressure	28/3-2022, 32 min	Digital Meeting via Google Meets
Legal Consultant, <i>Big 4 firm</i>	Coercive Pressure	22/3-2022, 30 min	Digital meeting via Zoom
Certification Specialist (1)	Coercive Pressure	15/3-2022	Email conversation
Certification Specialist (2)	Coercive Pressure	23/3-2022 33 min	Digital meeting via Zoom Meetings
Sustainable Business Strategist, <i>Large Bank</i>	Market & Capital Provider Pressure	11/3-2022 36 min	Digital meeting via Microsoft Teams
Project manager, <i>State-owned real-estate firm</i>	All Pressures & Environmental Strategy	6/4-2022, 30 min	Digital meeting via Microsoft Teams
Sustainability Manager, <i>Private-owned real-estate firm</i>	All Pressures & Environmental Strategy	12/4-2022, 30 min	Digital meeting via Microsoft Teams
Head of Sustainability, <i>Private-owned real-estate firm</i>	All Pressures & Environmental Strategy	13/4-2022, 30 min	Digital meeting via Zoom Meetings
Business Development Manager, <i>Private-owned real-estate firm</i>	All Pressures & Environmental Strategy	21/4-2022, 27 min	Digital meeting via Zoom Meetings

Table 1: Interview sample

3.2.3 Collection of Secondary Data

The interviews were additionally complemented with secondary data from the real-estate and construction industry and adjacent field(s) to create a profound understanding of sustainability-oriented pressure and reactions. Cowton (1998) describes this as data collected by others and is exemplified by data from regulatory bodies, companies, and the press, which will be used to complement the primary data collected from the interview sessions. The purpose is to theorize and complement the primary sources to answer this study's research questions more accurately. There are both benefits and drawbacks with using secondary data and the author argues that some of the advantages rely on the cost benefits of using already existing data. To gather data by oneself could, arguably, be ineffective, both since it is time-consuming and might be financially expensive. The loss of using already collected data is that the researchers lose control over both data gathering and analysis since it sometimes could be hard to understand. This could in turn lead to misinterpretation of data and thus wrong conclusions could be made. The data is, as earlier mentioned, not explicitly gathered for this investigation specific research questions, and must therefore be interpreted cautiously. To cope with the risks of using secondary data one must both be aware of the data selection process for each specific paper, both in terms of reliability and timeliness of the sources. If aware of the risks of using secondary data, the author argues that it might be beneficial to use since it could provide additional contextual understanding. Furthermore, the author discusses the use of secondary and primary sources in combination and argues that it is a beneficial method since the data sources will complement each other. Further, it gives the authors abilities to "triangulate" the different data which could increase the credibility of the research. This paper will thus use secondary data with cautiousness to be able to both complement and triangulate the primary data with the intention to give a more justified and correct analysis of the research questions in this paper.

3.2.4 Analysis of Data

According to Collis and Hussey (2013), there is one major implication when it comes to analyzing qualitative being the inability of making clear-cut conclusions, which is more easily done in quantitative studies. This is because qualitative data is not enough to create general patterns since it could be biased both by the researcher and the data collected. It could further be hard to distinguish which of the information gathered should be presented and analyzed in the study along with what should be excluded. The main issue, and limitation, with analyzing qualitative data is according to Collis and Hussey (2013) and Bell et al. (2019) that there is no general set of rules when it comes to analyzing qualitative data, which could make it hard to grasp the essence of what should be analyzed and how it most efficiently is carried out. Collis and Hussey (2013) find it useful to start off the qualitative analysis by reducing the data by selecting, focusing, transforming, and abstracting the data to facilitate a decreased amount of data. There are, however, some when reducing the data as it requires a thorough reflection to mitigate the possibility of decreasing relevant data. After the data reduction, Bell et al. (2019) argues that to be able to analyze qualitative data, one should try to do a thematic analysis. A thematic analysis is not an entirely agreed upon concept but the authors state that one should try to code, or group, the data into more perspicuous themes to

be able to conduct the analysis. The code could be short words or sentences that give a certain piece of information a certain place in the analysis. Collis and Hussey (2013) confirm that the usage of coding when analyzing qualitative data is an effective approach as it allows the researcher to understand the data and how various interviews or segments of an interview are connected to one another. Bell et al. (2019) presents a set of steps to consider in the process of coding empirical data, which will be used in this analysis. First, the authors mention that the process of coding should begin as soon as the data is collected since it enables a deeper understanding of the data. A certain piece or segment of the information could also be coded into several different codes, which enables the researcher to more broadly understand and use the data. In the coding process the data should also in some way be considered in relation to the existing literature to be able to fully understand the value of it. At last, the different codes should be analyzed towards each other to be able to find general patterns and contradictions within the data set to be able to interpret it and thereby conduct a valuable analysis in line with the purpose of the research. To summarize, the general ideas and thoughts from Collis and Hussey (2013) and Bell et al. (2019) that are presented above were hence used to analyze the gathered data in this report and thus could be used to assess the quality of this work.

As previously mentioned, the Wang et al. (2020) model provided the report with a theoretical framework, both in terms of the presentation of our empirical data but also during the analysis of our theoretical body and empirical section. This provided the report with the ability to group our empirical data gathered throughout our interview process along with complementary secondary resources. This grouping was carried out to provide a more clear and efficient analysis of the report as several of the various sources would constitute one of the pillars within the Wang et al. (2020) framework. This model provided the report with a structure to construct the analysis around as it begins with analyzing the various pressures that are exerted towards the industry. It then explains how the firms are managing these pressures through corporate environmental strategies where the response is denoted as either a proactive or reactive action. After the empirical gathering, a slight correction of the model was made since the social pressures were found to not exert a direct pressure on the industry as per the respondents, but rather to reproduce the other types of pressures through their media channels. Thus, the social pressure will not be discussed within the empirical, nor analysis, in this paper. Instead, another pressure was found, which was pressure related to capital providers. It is argued that the capital provider pressure has a significant impact on the overall sustainability pressure within the industry but could not be directed towards any of the already existing subcategorization of pressure within the Wang et al (2020) model. Hence, in the empirical and analytical part the social pressure will be substituted with a “Capital provider pressure”, which originates from banks and other credit institutes. Additionally, the analysis tested if all pressures together created a proactive, or reactive, strategy implementation within the firm, or if the model could be revamped by arguing that some of the institutional stakeholder pressures is creating a reactive approach, whilst others create a proactive approach. The analysis of this report thus aimed to update the Wang et al. (2020) model to be more congruent with the institutional and stakeholder pressure within the industry.

4 Empirical Section

The empirical section of this report will be based on two different subsections to provide clarity and structure. The first subsections will include an exposition of the different types of sustainability-related pressures within the real-estate and construction industry. The second will attempt to explain how firms strategically respond to the sustainability-related pressure, whereas digital strategies will receive a specific focus.

4.1 The Internal Pressure

The internal pressure that stems from employees within the organization serves an important role in firms adopting sustainability within their business model. Employees' interest and the pressure of which they exert towards the organization has, according to a Sustainability Manager and a Head of Sustainability, increased significantly regardless of where they are in the organizational hierarchy. The Sustainability Manager, however, highlighted that their CEO and management team has the strongest influence in the process of integrating sustainability, which has transpired efficiently given their own curiosity and interest. The Sustainability Manager and the Head of Sustainability both further describe that their top management team have an important role in the internal development since they are the ears both on the inside and outside. Thus, they can recognize on what level sustainable development is required and then create strategic directives in line with those requirements. The Business Development Manager added a similar argument in that the top-management team has a more significant mandate in changing processes that fall outside core operations, such as ESG-related directives.

The Project Manager also emphasized the importance of internal pressure and described that employees within their organization have begun questioning their business process related to sustainability on their specific practical level. The Sustainability Manager explained that they have made changes to their organizational structure, which consists of a central organization concerned with sustainability and digital adoption. This group will subsequently work vertically and horizontally with all functions within the organization, which hopefully will translate into a more efficient integration. Finally, The Head of Sustainability mentioned that to be able to attract top-level employees they must be an attractive employer where being sustainable is argued to correlate with being an attractive employer. This argumentation is further proved in a study by Nuuka (2020), who found that approximately 65% of all respondents within the industry mentioned that sustainability has an important role in their corporate culture and thus the internal pressure is affecting the sustainable performance of the firms.

4.2 Customer Pressure

Several of the interviewees, such as the Sustainable Business Strategist, the Certification Specialist (2), and the Energy Consultant mention that a main reason for change within the industry is because the end customer ultimately demands it. The energy consultant for instance believes that one of the driving forces for an increased regulatory impact within the

industry stems from the fact that customers want to live and work in sustainably produced and operated buildings. Customers do, however, most often require the assistance of higher instances, such as regulators, to carry out their pressure sufficiently due to difficulties of doing it single handedly. The Sustainability Manager further mentions that their customers do not set specific requirements related to sustainability when renting a building, for example. Instead, the customers are rather holistic in their approach in that they want a sustainable integration but perhaps lack the knowledge to know what specifics to require. The Certification Specialist (2), however, believes that large customers, who are interested in large offices or production sites, will especially impact the industry. He exemplifies this by describing a situation where Google, one of the largest firms in the world, would be interested in building an office site in Sweden. In the scenario, he explains that Google most certainly would demand a certified building with the LEED-certification, since it is the most common in the United States, and thus also would force the potential suppliers to offer this to be of interest. This specific requirement is also mentioned by the Head of Sustainability and the Sustainability Manager, where having certain certifications related to sustainability almost becomes a competitive advantage for the customer to choose them over another firm that does not certify their buildings. In these cases, the operative advantages related to what the certificates might contain would not necessarily be the main objective but rather the reputation and the signals it sends to existing and potential customers. In addition, the Certification Specialist (2) believes that firms that demand these types of sustainability pressures, also will be willing to pay a larger amount for this service to be in place. The belief that customers will pay more for certified buildings is also confirmed by the Sustainable Business Strategist who explicitly explains that firms that offer a certified building will have more financially stable customers who rent for longer periods of time and are able to pay larger rents.

4.3 Regulatory Pressure

Sustainability Reporting

The Sustainable Business Strategist mentions that new regulations related to accounting principles that aim to incorporate sustainability are currently undergoing scrutiny to be approved. The regulation is proposed by the European Financial Reporting Advisory Group (EFRAG) and, according to the Sustainable Business Strategist, will generate significant changes. The regulations will for example oblige firms to include sustainability-oriented risk estimates that will result in an adjustment of the value of their assets. The Legal Consultant states that the regulatory landscape is continuously increasing, which is particularly evident with the EU Taxonomy, which creates ripple effects that influence reporting such as the ESRS accounting principles proposed by EFRAG. ESRS is thus argued to improve the information disclosure by firms and to oblige them to account for the impact of sustainability, which subsequently influences potential capital providers as a part of their screening process involves reviewing the financial and nonfinancial information disclosed in their prospects' annual statements. The Sustainable Business Strategist and the Legal Consultant are in tandem that the increased reporting requirements will force firms to assess their financial and sustainable performance in congruence by recognizing what risks are material and should

constitute an adjustment for the value of an asset. The transformation of sustainability reporting is also discussed during a webinar hosted by PWC (2022), where the essence of impending regulation is to enhance the current level of sustainability reporting to be on par with financial reporting. The information that will thus be disclosed is intended to provide stakeholders with valuable and relevant information related to business operations in all stages, both horizontally and vertically.

As previously mentioned by the Sustainable Business Strategist, Legal Consultant and PWC (2022) significant positive effects are due if the integration of sustainability is carried out in an efficient way, but a variety of challenges do, however, exist. PWC (2022), for example, mentions that regulations will require a more holistic and integrated approach in how sustainability processes are perceived and implemented in an organization. They reject the common perception that firms historically have had, where they view sustainability as a detached process from an organization. Instead, a unified approach that combines different parts of the organization to create synergies to ultimately build processes and routines that truly manifests within the organization is argued to be crucial for a streamlined transition. Another challenge firms will face is the increased consumption of time and resources that inevitably are concurrent with increased reporting requirements. PWC (2022) exemplifies this by annual sustainable reports which will most likely be five or six times more expensive in terms of resources and time consumption.

EU Taxonomy

The new directives of the EU Taxonomy are discussed extensively within and around the real-estate and construction industry and the regulation has in fact been mentioned as a main driver and pressure for sustainability integration and transformation by most of the respondents. In short, the Legal Consultant describes that the new EU Taxonomy directive will have a direct impact on sustainable reporting as line items such as revenue, capital expenditures and operating expenditures will be assessed as either sustainable or not. The Taxonomy will have guidelines for all the activities in the specific sector and then it is up to the firms to both meet these requirements and collect the data necessary to present that they are aligned with the requirements of the Taxonomy to ultimately be categorized as green. The EU Taxonomy will thus generate a framework to classify the various activities a firm carries out as either green or not. When trying to concretize more accurately what firms need to do to comply with the changes of the new regulations, the criteria's that is to be measured are for instance waste management, usage of sustainable technologies and control of hazardous material (Watson Farley & Williams, 2021). The Taxonomy is creating new requirements for the firms related to sustainability reporting and benchmarking. The firms, however, do not believe that the reporting, or information gathering will be the ultimate challenge, but rather which strategic actions need to be made to be compliant with the Taxonomy. The Head of Sustainability especially pinpoints the strategic moves needed to be made as an ultimate challenge because the Taxonomy is still changing and developing quite quickly which increases the degree of difficulty to keep up with it. The Sustainability Manager adds to the discussion by stating that they have created their own frame of reference inspired by the EU taxonomy. Their own take on it is however set above the thresholds of the

EU taxonomy, which serves as a proactive measure to ensure they are compliant even though the criteria would become stricter.

The Energy Consultant states that even though the Taxonomy itself is quite straightforward by the fact it forces firms to measure and present KPI: s to reach a certain benchmark to be able to be classified as green it does however have its limitations and corresponding difficulties. Considering the energy aspect, for example, the Energy Consultant explains that for an investment related to energy use to be green, the firms need to present the amount of CO₂-equivalents per kilowatt hour the investment yields. The Legal Consultant elaborates further on the topic and mentions that to be classified as a green building one must reach an energy class of “A” and thereby perform in the top 15-percentile in a certain area. However, even though the EU Taxonomy is an overarching system with the same classifications despite the country, the energy classification system is not. Within the Nordic countries, an energy class “A” legally requires more from the firms in comparison to a firm in for instance southern Europe since the amount of acceptable kWh usage per year is lower in Sweden. The Head of Sustainability describes that energy class “C” in Sweden could be comparable with energy class “A” in another country which creates faulty interpretations when comparing firms in different countries. The Legal Consultant thus believes that there is a great risk that less buildings in Sweden will receive an energy class “A” compared to other countries as the threshold is set higher. This could also in the long run lead to a decrease of capital inflow to the market which might harm the development of it. This regulatory ambiguity is also described by Antin (2021), who state that in the Swedish real-estate market, approximately 1-2% of all buildings are classified with the energy class “A”. Since firms in general are keen to reach the EU Taxonomy benchmarks, and thus also reach the “A” classification, Antin (2021) anticipates that it might lead to an incentive to create new buildings rather than taking care of the ones already built as it is significantly more difficult to reach “A” classification on an already existing building. The same apprehension is described by the Sustainability Manager and the Head of Sustainability who believe that the Taxonomy is quite distorted since there is no difference between newly produced buildings and already existing ones. The Head of Sustainability argues that the Taxonomy directives are in favor of newly produced buildings since it is easier to reach the requirements with a newly produced building. The BIM-coordinator additionally explains that there is generally a low utilization rate of already existing buildings, and that the cheapest and most sustainable building is the one that is never built. This fact is something that the new directives within the Taxonomy might be neglecting, which was also highlighted by the Legal Consultant, The Head of Sustainability, and the Sustainability Manager.

Despite the limitations of the EU Taxonomy, PWC (2022) argues that the EU taxonomy provides information of what ought to be disclosed in a sustainable report. Pre-taxonomy sustainability reporting was many times borderline advertising rather than actual material information. Soon, however, both PWC (2022) and the Legal Consultant argue that firms need to be prepared for changes related to the Taxonomy. Another important aspect of the taxonomy is that it does not state that firms need to act in a sustainable way, but rather that they must be transparent of how much of their investments are sustainable according to the

taxonomy. Thus, one of objectives is to help capital providers more easily place their investments in sustainable firms. This does not however automatically mean that less sustainable firms will be neglected by capital providers but rather to create a framework to measure and compare firms from the perspective of capital providers more easily. This subsequently hopes to create a status-quo where firms are inclined to improve their sustainability performance as this translates to more accessible capital (SEB, 2020).

Certificates within the industry

Another impact force of pressure towards a more sustainable real-estate and construction process is the regulative tool of certificates. To clarify, certificates are not per se a governmental regulatory pressure like that of the EU taxonomy and the climate declaration by Boverket. Certificates are, however, deemed as a subcategory of regulatory pressure given the fact that they are deemed to act as a “regulative tool”. The aim with a sustainable certification is to shed light on sustainable actions through an entire work process (SGBC, 2022a). In comparison to other regulatory forces, such as the EU Taxonomy, a certificate is determined by civil and commercial organizations, and thus is not a governmental force of action (Boverket, 2019). The Legal Consultant describes that historically, certifications have had an important role for the development of sustainability processes within the industry. Certification systems have especially created a uniformity within the industry that has made more firms move towards the same sustainability goals. Certification Specialist (2) also believes the historical role of certificates to important; he however argues that it will be even more important in the future since certificates, in combination with for instance the EU Taxonomy, will be driving forces to be able to meet the Swedish net zero emission goals for the industry in 2045. Even though there is no law-binding governmental pressure regarding certification of buildings, there are other ripple effects of having a certificated building. NCC (n.d.) states several benefits with certificated buildings, such as it increases the opportunities of communicating the buildings sustainability level, guarantees of low energy waste, increases the value of the building, and generates value throughout the entire life cycle. WSP (2022) complements this by addressing that a certificate also makes it possible to benchmark and compare buildings against each other.

When evaluating the future role of certificates within the industry, both the Legal Consultant and Certification Specialist (2) believe that the EU Taxonomy will be incorporated into some, or maybe all, of existing certifications which will make certifications an integral part of being compliant with the taxonomy. The Head of Sustainability presents a possible scenario where there is a clash between certificates and the taxonomy considering both have the same objective of determining whether a firm is sustainable or not. Considering that many customers are demanding some sort of certification has led to a situation where larger and more established property owners certify either some parts, or the entire portfolio of buildings to be able to attract customers. The Certification Specialist (2) believes that this trend stems from an increased pressure, both from customers, but also capital providers. There is a certain belief within the industry that firms need to certify their buildings to be able to obtain funding and green loans within the future. This is also confirmed by the Sustainable Business Strategist who argues that a firm that does not intend to act sustainable also poses a larger

financial risk. Thus, when a firm is certifying their buildings, they signal to external stakeholders that they intend to act in a sustainable fashion, which hopes to reduce the perceived financial risk to incur better loan terms, for example. The Certification Specialist (2) further also proclaims that the reason for firms to certify their buildings is mainly financial, something that the funding example confirms. Despite the increased ability to obtain funding, certifications could also be a part of the marketing for the firm, which further might lead to increased revenues and profits. The Certification Specialist (2) thus argues that a firm would not certify their buildings if there were no positive financial impact of it. Both the Sustainability Manager and the Head of Sustainability further argue that certificates are beneficial in, for instance, pressuring their suppliers towards more sustainable materials. There also seems to be generally positive discussions related to certifications within the industry since it gives more of the decision-making power to the firms rather than the regulators since it is possible to choose which certification system one believes is the best. Thus, certifications have an important role both upstream and downstream within the supply chain.

Climate declaration by Boverket

An additional regulatory force that will have an impact on the Swedish firm's sustainable development is Boverkets updated demand on climate declarations for all newly constructed buildings larger than 100 square meters. The law is a new Swedish law that was introduced the 1st of January in 2022 and will influence all newly constructed buildings from that time and forward (Boverket, 2022). The BIM-coordinator believes that this will be one of the largest sustainability related difficulties that firms within the industry will face in the following years to come. The declaration means that all newly constructed buildings will be obliged to declare the number of CO₂-equivalents related to a specific building. Boverket (2021c) further explains that the new law does not have any limitations related to equivalents, however the aim is rather to increase knowledge of the impact from the real-estate and construction industry and thus motivate them to take precautionary measures towards more sustainable processes. The Project Manager believes it to be a developing coercive pressure that will affect more firms and more projects as time progresses. The Project Manager also highlights that the Climate declaration will also be required for renovated buildings in the future.

4.4 Capital Provider Pressure

From a capital provider perspective, the Sustainable Business Strategist mentions that their overarching role is to align their strategies and operational activities to comply with generally accepted policies and regulations to enable them to help their customer in their sustainable development. To be able to utilize the power in which they possess, the Sustainable Business Strategist states that the main role as a bank is to provide financial solutions through (primarily) investments and loans. In terms of the ability to exert pressure in the process of an industry becoming more sustainable, the banking industry has a responsibility to efficiently allocate their capital. The Sustainable Business Strategist explains that some of the pressure that they exert originates from them neglecting loans and investments if the capital seeking

party does not fit within the framework of the banks policy. It is however also highlighted that they much rather help subpar organizations improve their processes to subsequently fit within the bank frameworks of approved loans and investments.

The Sustainable Business Strategist also discusses the importance of green loans, which is mentioned to serve a crucial role in the real-estate industry to fund the establishment and construction of properties. This is also supported by Certification Specialist (1), who has observed a general trend in the industry of an increased interest in building certificates where the underlying driving factors are said to be of financial character such as green loans and other financial motives. It is also mentioned by the Sustainable Business Strategist that green-loans have been somewhat “stand-alones”, which means that a particular project that needs funding would only have to be green to receive a green-loan. A notable trend is, however, that capital providers have broadened their scope and begun looking at the overarching organizations to determine whether a green loan is feasible. The bank would thus look at certain KPIs that hope to monitor the loan applicant's direction and whether it congruences with the framework of the bank. As banks scrutinize firms as a prerequisite for providing capital and this process becoming progressively more holistic, the approach also aligns with the respondent's idea that the inclusion of sustainability is close to reaching a “hygiene-level”. This is referred to as a level where the inclusion of sustainability has become generally accepted and part of the status-quo. In terms of pressure exerted from banks that originate from green loans is primarily related to what the Sustainable Business Strategist denotes as a “greenium”, which is the discount sustainable firms receive through more beneficial terms. Conversely, the Sustainable Business Strategist, also mentions more operative advantages that come with more sustainable properties such cut energy costs, more efficient water consumption, better indoor air quality etc.

Both the Head of Sustainability and Sustainability Manager recognize that the increased pressure by capital providers has generated an effect on sustainable reporting as it has been constantly evolving and becoming more extensive. The Sustainability Managers, specifically, mentions that this has resulted in them having begun establishing quarterly sustainability reports and thereby equating it with financial reporting. The general interest of their sustainability efforts of their current and potential capital providers is also said to have seen significant increased interest, which is particularly evident during investors meetings etc. The sought for information from banks and other credit institutes is said to relate to for example the amount of environmentally certified buildings and energy performance of their buildings. The Sustainability Manager and Head of Sustainability are in tandem in that they are incentivized to designate increased efforts toward sustainability reporting and overall sustainability integration given the rewards associated with it. Whereof, the rewards are often said to be the “greenium” of either more beneficial interest or other terms.

4.5 Strategic Response to Manage Sustainability-related Pressure

Due to the increased pressure of sustainability integration within the real-estate and construction industry, new work procedures, strategies, and practices are needed. One of the major challenges originating from the pressure is the increased need to be able to structure and present data to be able to prove that the firm should be considered as sustainable. Almost all of the interviewees in this paper mentions that there is an increased demand for sustainable data and that the firms need to be able to both gather and structure the data in an efficient and easily managed way. Further, both the Energy Consultant and Legal Consultant mention that to be able to be compliant with the EU Taxonomy, firms need to be able to present the required data to prove that they are aligned with the metrics of the EU Taxonomy. If the firm is unable to present sufficient data, they are by default considered unaligned with the EU taxonomy framework. This is further elaborated on by PWC (2022), who mentions that digital solutions might be necessary to be able to meet the new regulations related to sustainable reporting. The increased amount of data and information needed to be presented in the process of sustainable reporting is also argued to be difficult to carry out without the help of digital solutions. Moreover, it is not only the regulative directives that demands improved digital solutions, The Legal Consultant argues that to be able to be an interesting firm on the market for capital providers, the firms also need to be able to present themselves as sustainable with facts and KPI: s that is aligned with the capital provider's requirements, something that is also confirmed by the Sustainable Business Strategist. Despite this, the digital transformation is somewhat inadequate in some areas related to data gathering. It's important to however note that this does not automatically mean that firms actively do not want to digitalize existing buildings. The Energy Consultant explains this by exemplifying that when firms collect data from one of their older properties, out of 100 times, 99 of them is manually carried out. Historically this has been the approach and it takes time to readjust these processes since it requires heavy investments to change. Further, the Energy Consultant is certain that the reason firms do not change these processes is not due to them being conservative or recognizing advantages of digitalization but because it is complex and costly.

To be able to adhere to the sustainability-oriented pressures, several of the respondents tend to argue that digital tools might be a solution to meet these changing requirements. For instance, the BIM-Coordinator argues that utilizing a digital tool such as BIM will generate a positive impact on sustainability, mainly due to the increased knowledge that it generates. The interviewee exemplifies this by the information that a BIM model give are related to the choice of for instance material use, expected energy consumption, waste, etc. makes it easier to compare a multitude of strategies, both from a financial and sustainable perspective. Instead of, as it has been before, planning based primarily on instinct, all decisions could be backed up by data which increases the possibilities to make sound business decisions. In addition, the BIM-Coordinator mentioned that the planning at the construction sites could be more thorough which decreases the amount of production stops, which in turn benefits the social, financial, and ecological aspects. The Business Development Manager further described that a trend within the real estate and construction industry is to adopt a hybrid approach where all buildings and districts will have their digital twins. In terms of new

properties, the argumentation comes rather naturally as it is relatively easy to incorporate digital solutions in conjunction with the planning and construction of a new property. However, the biggest issue is related to already existing buildings and the process to revamp them to enable a BIM system to be utilized to map the building. This is furthermore mostly due to the high costs associated with transforming an old building but also it being highly time and resource consuming. In addition to newly constructed buildings, the Project Manager the large barrier of becoming fully digital is due to several different problems related to already existing buildings. At first, most of the already existing buildings were built with no intention of ever being digitalized, which means it requires significant investments of both time and capital to update to present standards. For instance, several of the blueprints are only on paper which makes the use of digital tools almost impossible. The BIM-coordinator argues that one of the major challenges is to efficiently use already existing buildings. At first it could be calculated if buildings or parts of buildings could be made smaller in terms of space to increase the usage per square meter to increase the utilization rate. This argument is especially strong since the BIM-coordinator further declares that the cheapest and most sustainably efficient building is the one that is not built. This statement is built upon the idea that there already exist a multitude of buildings in society that are not utilized as efficiently as possible, and the best course of action would thus be to increase that utilization rate and consequently prevent the need for establishing new properties.

In the industry report by Nuuka (2020), 44% of all respondents believed that “Smart Buildings” will be the status-quo within the next 2 years and no respondent rejected the idea that digital tools would not serve a significant role in this transformation. The main reasons for a digital transformation were decreased energy consumption (67%), better customer experience (61%), and more efficient operative activities (56%). Evidence of digitalization being an active business strategy within the industry was also present, which was evident by below 15% of the respondents not having a plan or budget dedicated to this purpose. The remaining respondents had either started or even finished the digitization process of their real-estate portfolio. This is strengthened by the interviewees in this report where both the Project Manager, Sustainability Manager, and the Head of Sustainability argue that within a short period of time, digital solutions will be necessary to be able to meet certain sustainability objectives and pressures. The Project Manager also believes that some sort of digital solution, through for instance a BIM-model, will be the only solution for information gathering, processing and presentation. The Sustainability Manager further states that digital tools will decrease the amount of manual labor which in turn will increase the possibility of being productive and effective in the firm's sustainable processes. Lastly, the Head of Sustainability also argues that when the industry has become more digitally oriented, it will be easier to address if a firm is performing well related to certain sustainability measures, and thus the firms that are high performing will also benefit more from it in the end. The BIM-coordinator adds to the discussion by estimating the use of BIM, or 3D models, to currently be utilized in approximately 98% of all newly constructed buildings and additionally 40% of all renovated buildings.

Both the Energy Consultant, the Legal Consultant, and PWC (2022) all mention that a major challenge for firms is how to administrate themselves, and how to ultimately distribute knowledge within the firm. PWC (2022) argues that the ability to successfully digitalize oneself and meet the increased pressure of sustainability, the departments of IT, Business, and Sustainability need to collaborate and share knowledge among each other. Both the Sustainability Manager and the Business Development Manager argue that in order to successfully implement digital processes, the organization needs to be well-structured with cross-organizational functions. The Business Development Manager develops this argumentation by arguing that when firms are organized in silos with specific focus on their respective functions, it is much harder to implement non-core-business activities, such as digitalization and sustainability, since the functions most often believes that it distracts them from their core business rather than benefit them. Thus, in a siloed structured organization, digitalization and sustainability strategies often create conflicts between the divisions, especially if these interfering divisions have a mandate to force their activities onto the core business. The Business Development Manager and Sustainability Manager argues that most often the conflict stems from a communication issue between the two siloed functions, and thus the “core-business silo” does not understand the benefits of for instance new digital solutions, whilst simultaneously the digital team might not implement valuable tools for the team. The Sustainability Manager further argues that the top-management should be the ones responsible to implement organizational structures that benefit the entire organization. It is also their role to create joint activities between for instance the sustainability manager, the IT manager, and the managers from the core business. The role of top management is also to emphasize the importance of these activities and how they should cooperate with the core activities to be ultimately successful.

One important external restricting factor, both regarding sustainability and information processing through digitalization, that is mentioned by several of the interviewees is the lack of integration within the supply chain. The Head of Sustainability describes that within most of the newly produced building processes, there is a lot of complexity which creates the need of having many partners and suppliers. Both the Head of Sustainability and the Sustainability Manager describes that even though the larger suppliers have well developed processes related to digitally sharing information related to their supplied materials, the smaller suppliers sometimes only send sustainability information related to their products through e-mail or via scanned files, which increases the difficulty of having solely digital processes for the producer of buildings as well. However, the Head of Sustainability, the Sustainability Manager, and the Project Manager believe that it is their responsibility to add pressure on their suppliers to increase their sustainability performance. Due to the increased pressure on the real-estate and construction industry, they will need to disclose both their own and their suppliers' sustainable footprint and thus sustainable suppliers will be benefited in the future. They also believe that due to the increased pressure, there will soon be a hygiene level related to both sustainable materials and information sharing since suppliers without the ability to do so will be exterminated as they will be rejected. This is further strengthened by the Business Development Manager who argues that if a supplier is not performing on the levels required by the purchaser, they would simply be exchanged in favor of another supplier.

5 Analysis

The analysis of this report will be divided into segments from the model “Stakeholder theory and institutional pressure” by Wang et al. (2020) which is presented in the theoretical framework of this report. The stakeholder pressure is described by four subsegments that are Internal, Market, Coercive, and Capital Provider pressure. Under each of the subsegments the empirical and theoretical findings related to each pressure will be discussed and developed to match the real-estate and construction industry in Sweden. Further, the related corporate environmental strategies that were found relating to the different pressures will be discussed in each subsegment to be able to grasp whether the specific pressure is responded to proactively or reactively by the industry. The discussion will lead to an updated model that is derived from the Wang et al. (2020) model. This will ultimately create an explanation of how the industry is reacting to a variety of different institutional pressures generated by both internal and external stakeholders.

5.1. Internal Pressure

As could be seen from Wang et al. (2020), the internal pressure is divided into its own subsections, where board members, managers, and employees are affecting the internal governance and pressure. What can be interpreted from the empirical evidence is that firms are aware and recognize that the internal pressure is of great importance in terms of the extent to which they drive sustainability integration and digital development. The impact that the different internal stakeholders have is however said to vary depending on level of seniority. Managers were, moreover, demonstrated to play a significant role as their beliefs have a large impact on the level and importance that sustainability efforts receive within the organization. Among managerial positions within the organizational structure, it was also mentioned that the CEO and management team ultimately had the largest impact along with the best ability to recognize required sustainable development to facilitate strategies that fit within the firm's plans of direction. The empirical evidence also showed that the extent to which managers make efforts to incorporate sustainability is dependent on their own curiosity and interest. The fact that managers within the real-estate and construction industry seemingly are the most impactful internal stakeholders concurs with Wang et al. (2020) findings that managers are the key factor in driving sustainability transformation. Eidat et al. (2008) findings which argued that managers with a sustainability focus direct more investment and resources to sustainability initiatives, was also congruent with the empirical findings. Eidat et al. (2008) also argued that sustainability inclusion will lead to competitive advantages and subsequently an increased value of the firm, whereof the competitive advantages of sustainability inclusion has been indicated by the empirics but where direct effect with firm value is unable to be either confirmed or rejected.

The empirical evidence also highlighted employees as an important stakeholder that pressures organizations to improve their sustainability initiatives despite their hierarchical position within the organization. As described by the empirical findings it was indicated that employees are part of the pressure in driving change of environmentally related strategies but a clear correlation between employee sustainability engagement and firm adoption of

sustainability related strategies, as described by Alt et al. (2015), is somewhat ambiguous. A particularly interesting factor in the pressure originating from internal stakeholders is the pressure of which potential employees have begun exerting towards their potential employer. Davis-Peccoud (2013), which argued that potential employees have begun treating sustainability integration as a prerequisite to consider a firm as an employer. This type of pressure is also recognized in the empirical findings where firms have felt pressure of including sustainability as a measure to stay competitive in relation to industry peers to attract top-level talent. It could thereby be argued that firms have begun making proactive strategic decisions related to sustainability integration, which in turn hopes to facilitate a corporate culture that is attractive to potential employees. This must however be related to the empirical findings, which found evidence that firms were rather unanimous in that they believed that the pressure stemming from internal stakeholders has significantly increased in the recent years. The conclusion that employees had developed an increased interest in sustainability must thus be interpreted with some cautiousness as employers have begun hiring employees that fit within their new sustainable framework.

As previously mentioned, firms have been rather proactive in their approach of integrating sustainability as a measure to become an attractive employer and thus attract top-level talent. Our empirical findings also suggest that other strategic responses related to the exerted pressure from internal stakeholders is related to organizational restructurings that hope to benefit organizations overall sustainability performance. The Sustainability Manager, specifically, mentioned the establishment of a central organization dedicated towards working with sustainability related opportunities and issues vertically and horizontally within the organization. Our empirical findings also found that structuring the organization structure around “silos”, which essentially meant that each function focuses on themselves and their own strategies and output, which in turn complicates the integration of non-core activities such as sustainability inclusion as it may create conflict between functions within the organizations. As it was established that silos complicate the ability to facilitate strategies that benefit sustainability, the central function, as discussed by the sustainability managers, could mitigate those difficulties. A further action and strategy discussed is the management team's ability to structure the organizational structure in a way that allows for cross-functional dynamics, where the different silos collaborate on the activities. Strategy related initiatives such as the one mentioned within this paragraph are, arguably, congruent with the Wang et al. (2020) model, and more specifically, the proactive strategies within the corporate environmental strategies.

5.2 Market Pressure

When moving the attention towards market pressure, the framework of Wang et al. (2020) is defining it as the pressure from the supply chain and market competition, i.e., from stakeholders such as customers, suppliers, competitors, and industry associations. When relating customer pressure towards more sustainable processes it is empirically found that customers are increasing their pressure related to sustainable buildings and processes. However, there is a quite large difference between smaller and larger customers. Smaller

customers, such as private persons renting their apartments, have more difficulties generating pressures and specific requirements related to the sustainable performance of the buildings. One additional problem is that it is difficult for smaller customers to award a firm for their sustainability integration by thus paying a premium for the service of renting a sustainable building as compared to a non-sustainable building. This is in line with the thoughts of Gong et al. (2019) who argue that customers with non-specific requirements of sustainability also generally are having more trouble rewarding the firms for their sustainable work. Since the firms are unable to be rewarded for their sustainable work from these types of customers, the authors argue that there could be a general unwillingness to adapt to more sustainable processes. This is strengthened by the empirical evidence of this report since the small customer demand is mentioned, but not really considered as one of the more important isomorphic pressures on the industry. Larger customers, such as larger corporations, tend to be able to formulate their requirements more efficiently and extensively making it easier for them to both meet the requirement and get rewarded for them in the long run. The most prominent customer demand seems to be that the rented buildings should be certified in one way or another. This is also often rewarded with customers who are willing to rent for longer periods of time, to a larger price, and generally are more financially stable, which is in line with the ideas of Granly and Welo (2014) who argue that certificates decrease the perceived financial risk from their customers.

A direct strategic response to the customer pressure could also be seen from the empirical section where both the Head of Sustainability, the Sustainability Manager, and the Certification Specialist (2) proclaims they are almost required to have certificates since one would not want to be neglected because the building is not certified. Hence, they argue that certificates could be seen as a competitive advantage, and decrease the economic risks since it increases the number of potential customers. What was additionally found through the empirical findings related to customer pressures is that due to the limited role of the end customer, several of the other isomorphic pressures such as the regulations are by several interviewees, such as the Energy Consultant and the Sustainable Business Strategist argued to be created with the end customers best interest in mind. To clarify the importance of the customer pressure, the Energy Consultant argues that the effect that other stakeholder pressures have would not be as significant if pressure originating from their customer had not existed in the first place. Intuitively, the idea would thus be that customer pressure sparks additional pressure to emerge from other types of pressure such as coercive and capital provider pressure, which in turn is congruent with the notion that customer pressure generally is the most impactful in accordance with the arguments by Hoejmose et al. (2014) and Gong et al. (2019).

The upstream sustainable pressures within the supply chain, i.e., the suppliers, is by the interviewees generally not seen as a source of sustainable pressure, but rather could be seen as a restrictor of the sustainable development. Among the interviewees with the industry representatives there seems to be conflicting opinions whether there is a general lack of either sustainable product with an acceptable quality or lack of information sharing by the suppliers. However, a common belief exists which is that larger and more established suppliers

generally are better at supplying both qualitative and sustainable products and to provide required information. The most prominent challenge seems to stem from the analog procedures by smaller suppliers, where it seems to be business as usual to manually address green information through for instance an e-mail or scanned documents. This is congruent with both the ideas from Lynch (2021) who describes that there is a general lack of information visibility within the industry, and the thoughts of Smart Built Environment (2018) who argues that the lack of visibility is due to the analog information processing. The lack of visibility further decreases the possibility of using digital systems, such as BIM-models, due to the lack of information processing. Lynch (2021) further describe the lack of information visibility within the supply chain as one of the major restrictors of sustainable performance. The empirical research of this report could somewhat refute that statement since there seems to be a more dominant approach by the industry, requiring more sustainable and digital processes by the suppliers or they will be replaced. This is also disproving the idea that there is a clash between the industry and its suppliers on who is responsible for the transformations since suppliers that are not compliant will eventually be replaced. In hindsight, the clash seen in Lynch (2021) could stem from the ideas of the Business Development Manager in that the industry historically has had difficulties of concretizing their demands related to sustainability and digitalization. This clash could also be seen in Gualandris and Kalchschmidt (2016) where there is a general lack of rewarding suppliers for their sustainable work, something that still seems to be a relevant issue within the industry.

The problem could arguably be seen in the complexity of having a large web of suppliers, rather than the visibility among the suppliers. The increased visibility between the firms and their suppliers have had, and will continue to have, a positive impact on the sustainable performance within the supply chain, which is in line with the reasoning of Woo et al. (2016) who argues that it will be a significant part of the foundation for an improved sustainable performance. This is further supported by the ideas of both Chen et al. (2019) and Gualandris and Kalchschmidt (2016) who described that the management and inclusion of the suppliers is of large importance to be able to have a successful sustainable performance. The statement of the Business Development Manager that suppliers that are unable to cooperate towards common sustainable and digital practices will also be disconnected is further proof that the inclusion has increased in importance.

On the other end of the market pressure, competitors are imposing an important isomorphic pressure on the firms within the industry, especially since it could be concluded from the empirical section that the major driver within the industry is financial. Thus, to be financially successful it is necessary to outperform the competitors, and by considering that sustainability is becoming increasingly important both for customers and capital providers, the performance of it needs to be improved to be competitive. It should, however, not be concluded that competitors are necessarily putting pressure on the firms, but the role of which they serve is rather that the firms want to outperform their competitors to gain competitive advantages through a mimetic pressure. Hence, the competitive pressures should rather be seen as a driving force of sustainability performance, but the pressures to be met are rather the ones by customers and capital providers.

The general reaction by the industry related to the market-oriented pressure could be argued to be proactive and rather aggressive related to the corporate environmental strategy which is in line with both Nikmehr et al. (2021) and Ordieres-Meré et al. (2020). The main proactive reaction found in the empirical section is the introduction of BIM within both newly constructed and already existing buildings. This is evident since over 85% of all firms within the study by Nuuka (2020) have dedicated both time and money related to “smart buildings”, where BIM is a part of the solution. Proactive strategic responses related to market-oriented pressure are particularly evident in for instance energy efficiency and more efficient operations, which could be a response to competitor pressure to increase financial performance. Another important factor for the implementation of BIM models is due to the notion that it will enhance customer experience. The BIM-coordinator also mentioned that 98% of all newly constructed buildings and 40% of all renovated buildings are BIM compatible to more efficiently be able to meet pressures from various stakeholders. Hence, the empirical and theoretical section in conjunction makes it possible to conclude that despite not being the most prominent pressure, the market pressure within the Wang et al. (2020) model is managed more proactively than reactively through for instance an increased use of BIM, increased number of certificates, and a more effectively managed supply chain.

5.3 Coercive Pressure

The perhaps most prominent isomorphic pressure discussed and mentioned during the empirical section could be argued to be the increased coercive pressure by different regulative forces of actions. The EU Action Plan for Sustainable Finance has increased the regulatory demands to be more sustainable through, for instance, the new regulatory framework of the EU Taxonomy and the increased requirements of sustainability reporting through the EFRAG principles. Within the Swedish regulatory framework an increased pressure through for instance the newly adapted climate declaration of newly produced buildings is also evident, which in the long run aims to include both new and renovated buildings soon. In addition, the civil regulation of certificates, which historically has been a important tool for the sustainable development of the industry is still heavily relied upon by the industry and thus still is an important coercive pressure.

When analyzing the coercive pressure from an empirical perspective, it could be described as different tones and attitudes depending on the coercive pressure discussed. In the discussions related to the EU Taxonomy, ESRS, and the climate declarations by Boverket, almost all of the respondents are defining them as new regulatory challenges. There is generally a negative tone since it creates new requirements for the firms that are both complex, time consuming and expensive. The EU Taxonomy exemplifies this where both the Sustainability Manager and the Head of Sustainability describes that the largest challenge is to understand which strategic actions are most feasible in order to be Taxonomy compliant. The Legal Consultant and the Energy Consultant conversely argues that the EU Taxonomy is rather straightforward with clear definitions and requirements. It gives a clear view that the firms within the industry view the EU Taxonomy rather differently depending on their individual perspective. It could

thus either be perceived as a challenge rather or an opportunity to transform their business towards more sustainable processes. The Sustainability Manager and the Head of Sustainability argue that certificates, which historically have been important within the industry, still will be an important transformative tool towards sustainable processes since it allows firms to be classified as green through a method, they are already familiar with.

These empirical findings are in line with the theoretical findings of Daddi et al. (2019) who found a pattern where coercive pressures most often were negatively received by firms, whereas normative and mimetic pressures were affecting the firms positively. This was particularly evident as some of the respondents responded rather negatively towards forced coercive pressure, such as the EU taxonomy. This is dependent on the logic that firms are negatively inclined towards forced strategic changes imposed through regulations. Daddi et al. (2019) found evidence that coercive regulatory frameworks that were well written and clearly understood are generally more accepted and followed. This can explain why firms are concerned with the EU Taxonomy, due to its several limitations related to the energy calculation and favor of newly constructed buildings. The climate declaration by Boverket is seemingly more thoroughly implemented, and thus could be an explanation why the project manager is not too concerned with it as compared to the EU taxonomy. This could, however, also be due to the EU taxonomy impact being of a higher magnitude along with the extent to which it influences the status-quo.

From the Wang et al. (2020) model it could be argued that due the resistance of increasing coercive pressure, it would be a more reactive reaction to the pressures. When analyzing the empirical evidence in this report this seems to be a reasonable argument as well, especially since several of the interviewees argue that one of the main issues is related to data collection and presentation. For instance, to be able to meet the requirements of for instance the EU Taxonomy one must be able to find supporting evidence, of for example energy oriented KPI:s, that the building is in line with the regulatory criteria. The implementation of digital tools, such as BIM or a CRM system, could thus be argued to have a main part in both the gathering, structuring, and presentation of information and is according to the Project Manager the only reasonable solution within the foreseeable future. This is also in line with Lynch (2021) who have found supporting evidence that there is an increased use of digital tools such as BIM to facilitate increased information visibility, which seems to be one of the major implications of the coercive pressure. Due to the large costs associated with the adaptation of digital solutions, it is also reasonable to be rather restrictive related to the coercive demands and thus mainly seek to achieve the minimum requirements, which could be categorized as a rather reactive corporate environmental strategy that seems to be coherent within the industry. Osburg and Lohrmann (2017) also argue that the information seeking because of an increased coercive pressure should be related to a reactive strategic response, which is in line with the findings of this empirical research.

5.4 Capital Provider Pressure

What can be interpreted from the empirical evidence is that capital providers have become progressively more influenced by sustainable aspects, which can be seen in their transformed business models where sustainability has become an integral factor. A key part of the pressure that originates from banks is their placement of capital, whereof they have a framework that neglects allocation of capital that falls outside their criteria's. These criteria are hence composed of various factors where firms' sustainable performance and respective risk evaluation related to sustainability serves a significant role. This is in line with the findings of Pelozo et al. (2012) who found evidence that firms where sustainability permeates the organization are given a lower risk profile, which provides easier accessibility to capital as the cost of debt and capital decrease. From our empirical findings this is primarily evident through green loans, where high sustainable performing firms are offered capital through more beneficial terms. The Sustainable Business strategist, for example, mentions that customers that are deemed as sustainable consequently receive a "greenium", which essentially is a discount for loaning capital. It's further mentioned that green loans have historically been rather stand-alones in that a certain project would have had to be deemed sustainable to receive a green loan. Whereas the investigation to determine whether a firm is eligible for a green loan has become more holistic in that the sustainability ought to permeate the entire organization, which is congruent with the findings of Pelozo et al. (2012). From the theoretical framework Unruh et al. (2016) explained that capital providers are more concerned about sustainable performance, where approximately 60% of capital providers are willing to neglect funding opportunities that aren't compatible with their investment framework. This is somewhat confirmed by our empirical findings as capital providers have been found to prefer to direct capital towards firms with a clear sustainability focus permeating the organization as this is deemed less risky and most often a more attractive financial alternative in the long run. Interestingly, the pressure that is exerted from capital providers could thus be preventative as firms who fall outside their framework are rejected but also encouraging pressure that revolves around the logic that capital will be provided if the sustainability integration becomes better, for example.

The pressure from capital providers has also had an important impact on the regulatory framework where both the EU Taxonomy and ESRS is developed with the capital providers interest in mind. The aim with the Taxonomy and ESRS is to create more comparable sustainability reporting among all the European Union, and thus it should be easier for capital providers to compare and direct capital towards more sustainable firms and projects. An additional aim of the regulations is to create incentives for including sustainable processes into firms' overall strategy, which is in line with Ruiz et al. (2020) who argues that a more integrated approach to sustainability will also generate more streamlined disclosure of sustainable information to stakeholders through ESG reports. Thus, firms that will be able to include sustainability into their strategies, and further also disclose this information to their stakeholders will most certainly have competitive advantages and gain financially from meeting these isomorphic pressures. The line between what pressure that originates from regulatory bodies or capital providers could be seen as rather indecisive, given the fact that

some of the regulatory frameworks that are introduced as the result of capital providers pushing for a transformation that will facilitate increased sustainability reporting requirements, for example.

By moving on with the strategic response related to the pressure that originates from capital providers could, arguably, be deemed as reactive if viewed from the theoretical lens of the Wang et al (2020) model. The empirical evidence, for example, highlights that the industry has expanded their sustainability reporting as a response to an increased interest by their capital providers. It must however also be noted that the increasing sustainability reporting is also related to the regulatory framework, which ultimately has become more extensive. Information regarding the sustainable performance of their buildings has furthermore seen significantly increased interest, for example, where the banks and credit institutions are interested in the amount of certified buildings and energy performance of their buildings. The increasing sustainability reporting along with the increased aspiration of certifications is primarily motivated by firms seeking easier accessibility to capital combined with more beneficial terms. As discussed, the industry has become aware of the pressure of capital providers and thus begun reacting to construct strategic responses to fit expectations, such as increased sustainability reporting and certifications. The application of digital tools, for example, to proactively become more efficient in sustainability reporting to present their sustainability performance is recognized to have the potential to improve processes but is often deemed as expensive and time consuming to implement, which often results in changes being absent. In conclusion the pressure from capital providers has generally been found to be a reactive characteristic, where the corresponding rewards to adhere to pressures have been the prime motivators.

6 Conclusion

To conclude and ultimately answer the research question of this report, a recreation of the Wang et al. (2020) model is necessary to better reflect both the theoretical concepts of the institutional and stakeholder theory, and the empirical findings related to the real-estate and construction industry. To begin, the findings of this investigation argue that the capital provider pressure from banks and other credit institutes is a dominant pressure and is thus added to the recreated model. The social pressure from the Wang et al. (2020) model is however neglected since the empirical findings did not provide any support of this pressure more than that it increases the awareness of the other pressures, and thus we argue that the firms do not respond to the social pressure per se and hence should not be included in a reactionary model like this. As previously described the real-estate and construction industry is currently undergoing a transformation, where it historically has been restrictive in terms of innovation and adopting non-core activities indicating that a reactive response being the most predominant one. However, in congruence with new opportunities arising of managing sustainability-related pressures more proactively this investigation has found and distinguished that depending on the type of pressure the strategic response may vary in contrast to the traditional approach of the industry.

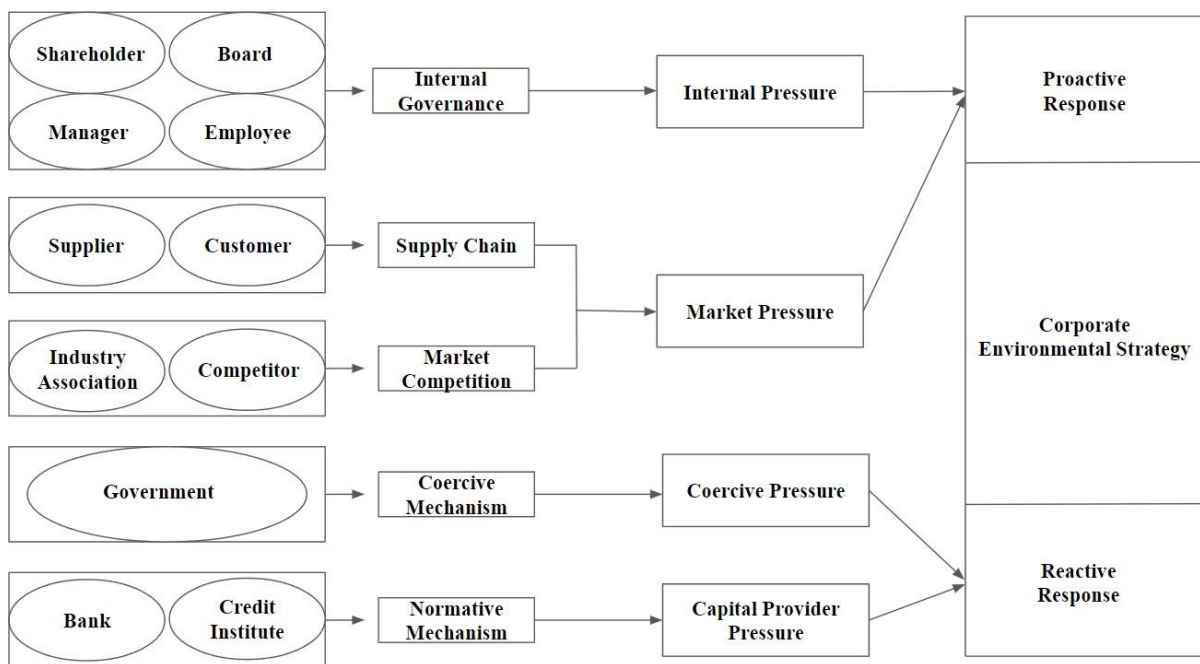


Figure 2: Recreation of the Wang et al. (2020) model

As could be seen in the analysis and the recreated Wang et al. (2020) model, there is a somewhat contrasting strategic response depending on the type of pressure. Even though it might be difficult to prove that one pressure is related to either a proactive or reactive strategy implementation the findings are, however, clear in that for each type of pressure they are more lenient towards either a proactive or reactive response, which is illustrated in figure 2. The findings show that both the strategic response to the internal and market pressure were

acted on more proactively and the coercive and capital provider pressure more reactively. This deviates to the original Wang et al. (2020) model which considered all the different pressures as a stakeholder pressure which could be acted upon either proactively or reactively. When relating the findings to the theoretical lenses of the institutional and stakeholder theory, the empirical findings could be even better explained. At first, the stakeholder theory includes a market approach to the different pressures and argues that stakeholders should be actively managed to be able to satisfy them in the long run. This explains why shareholders, employees, suppliers, customers, and competitors are proactively managed as it's possible to gain trust and create relationships, which in turn could facilitate value. Especially since a competitive advantage exists to meet their pressures by going beyond what is minimally required in terms of sustainable integration given the ability to be financially rewarded by the stakeholders. The coercive approach is determined to be reacted upon with reactive corporate environmental strategies since the boundaries of the pressure is more clearly determined and the industry will not benefit from "walking the extra mile". The capital provider pressure, however, could be argued to theoretically be met by a proactive reaction, since there could be rationale to have a good relationship with banks and credit institutes to receive the possible benefits that are associated with that. The capital providers were, however, categorized as having a reactive response as the empirical findings found that firms within the real estate and construction industry were motivated by receiving green loans and the associated "greenium". The associated responses to be considered as sustainable by capital providers, such as receiving certificates and improved sustainability reporting, were deemed as a reactive response to incur the related rewards.

Hence, Figure 2 concludes a recreation of the Wang et al. (2020) model which visualizes the different pressures experienced by the real estate and construction industry and their corresponding strategic response. It is thus concluded that a proactive response is generally the most dominant in terms of managing internal and market pressure. Conversely, a reactive response was found to be the dominant response with regards to the coercive and capital provider pressure. The implication of these findings contributes to the already existing literature of institutional theory and stakeholder theory by discussing them in tandem along with the additional recreation of the Wang et al. (2020) model. From a more practical perspective, the findings hope to provide practitioners within the real-estate and construction industry with information regarding the various pressures present in industry. Additionally, the discussion regarding proactive and reactive responses hope to aid practitioners in their process of adopting strategies to cope with the sustainability-oriented pressure that is exerted towards them. The contribution of this investigation primarily revolves around the recreated Wang et al. (2020) model, which analyses the institutional theory and stakeholder theory in tandem and enables the identification of different strategic responses depending on the type of pressure. A final key take-away is thus that the real-estate and construction industry have in some cases shifted from its historically reactive strategic response to institutional pressure by more proactively managing its stakeholders and the pressure that they exert.

7 Future Research

To finalize this research report it has ultimately led to a new interpretation of how stakeholders are affecting the real-estate and construction industry and how these firms strategically are responding to the sustainability pressures created from these various stakeholders. The findings concluded that the pressure related to both internal and market pressure were managed from a stakeholder perspective, i.e., that the firms proactively managed the expectations of these stakeholders to generate competitive advantages. In contrast, the coercive and capital provider pressures were managed through more reactive approaches, in line with the ideas of the institutional theory since there were small or no financial benefits of going beyond these stakeholders' expectations. As a suggestion for further research, it would be interesting to adopt another research approach, which is more quantitatively oriented through example surveys that thus would include a larger number of respondents. This would, hopefully, expand the significance of the findings during this investigation and provide other valuable insights.

In addition, it would also be interesting to test the applicability of the recreated Wang et al. (2020) model on various industries, and thus be able to find whether the model could be used as a frame of reference to other industries who experienced similar increased sustainable pressure such as Transportation and Mobility or Consumer Packaged Goods (Technia, 2020). At last, considering that this investigation has had its focus directed towards environmentally related sustainability pressures, it could generate valuable insights to shift focus towards more socially oriented sustainability pressures. Similar to that of environmentally related sustainability pressure, socially oriented pressures have also received increased attention of the public opinion, and the findings of an investigation of that fashion could be beneficial to compare with this investigation.

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