

INTERACTIONS OF DUTCH COMPANIES WITH THEIR STAKEHOLDERS IN THE CONTEXT OF THE ENERGY TRANSITION

Sustainable Entrepreneurship Project

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ABSTRACT

The current context makes planning and investing in sustainable alternatives more and more of a moral, social and environmental obligation for the important firms of the Netherlands. These businesses are part of something bigger. The ecosystems in which they evolve are composed of multiple groups of stakeholders with specificities to identify and consider when making a decision as important as changing source of energy. This paper tries to think of energy transition in the Netherlands in an ecosystemic way. It wants to identify stakeholders and highlight the type of relationship that they have with the main industrial firms. Using the case of the Frisian firm Royal Koopmans, qualitative interviews and existing literature on the subject, this research attempts to come up with a clearer understanding of the current context as well as what can be expected and recommended to major industries to help them reach successfully their plans of energy transition.

INTRODUCTION

The Bruntland Report (1987) also known as “our common future”, triggered a global preoccupation for sustainable development. Sustainable development was defined as the way to meet the needs of the present without compromising the ability of future generations to meet their own needs. The current economic and industrial model relies on fossil fuels making the search for alternative sources of energy a priority. The Dutch government has made it clear that energy transition was a necessary step for everyone to take (Ministry of Economic Affairs of the Netherlands, 2016). In 2016, the Netherlands was still dependent on fossil fuel for 95% of its energy supply and the Ministry of Economic Affairs already started promoting a smarter way of using energy in public spaces and within industrial clusters. While it mainly targeted refineries, metallurgical, chemical and paper industries on their energy use for industrial process heat, the cabinet formulated a broader objective advising “businesses to take their responsibility, [...] by investing in those energy-saving technologies that are already economically viable” (Ministry of Economic Affairs of the Netherlands, 2016). Fast forward to 2020, energy transition doesn’t appear as an option but rather a moral obligation. Environmental jolts (Sine, David, 2003) like the unexpected environmental problems that occurred in the Groningen gas fields made the necessity to act more tangible (New York Times, 2019). In addition, the normative pressure created by NGOs and the civil society also seems to be on the rise as the recent lawsuit opposing the Dutch State to the Dutch NGO URGENDA saw the State ordered to take measures against climate change (Supreme Court of the Netherlands, 2019).

In this context, big industrial stakeholders need to act in order to not only satisfy current and future regulations but also solidify their sustainable reputation in an era where dealing with stakeholders’ pressure has become a common part of any big corporation’s agenda (Berrone, 2010, Berrone 2013). This underlines an important point. Companies, as for any other stakeholder, do not operate in a vacuum and just as the Dutch Ministry of Economic Affairs stated it in 2016, the energy transition should involve as many stakeholders as possible (Ministry of Economic Affairs, 2016). One can thus make the supposition that tackling energy transition shouldn’t be an individual task but rather an opportunity to bring different actors together to achieve it in a systemic way. All of the concerned actors being part of a system or an ecosystem as it was theorised by Cohen (2004) and Isenberg (2011).

With this approach in mind, there are a few gaps to fill. First, the fact that the energy transition can be impacted by the stakeholders that compose the ecosystem. Second, the identity and role of the said stakeholders can be tricky to visualise. Finally, the way firms should interact with these stakeholders remains unclear. The objective of this paper is thus to understand how Dutch companies should interact with their stakeholders to conduct successful energy transition projects.

More precisely, this study focuses on the Dutch company Royal Koopmans, an industrial firm located in Leeuwarden (Friesland). As a regionally embedded firm that recently celebrated its 175th birthday, Royal Koopmans is now looking to change its source of energy which is currently natural gas. The reasons for changing are mainly the need to comply with potential future regulations, appeal to their stakeholders and maintain a high level of regional legitimacy among its community. The situation of Royal Koopmans is revealing of a context where industrial actors are left wondering how to start their energy transition. Though it is committed to making the change happen, the firm lacks the knowledge of a network of influential stakeholders on the topics of sustainability and energy transition. Additionally, Royal Koopmans lacks the material and financial resources to handle the transition by itself. The findings of this study are so not limited to helping Royal Koopmans but the companies of the industrial cluster of Leeuwarden that share similar interest

Judging by the situation of Royal Koopmans, it appears that the actors of this ‘ecosystem’ are not fully aware of each other’s existence and role which at best makes the transition a very slow process and at worst leaves it in a state of stagnation. Cohen (2004) and Isenberg (2011) already provide us with different frameworks and tools to develop a comprehensive mapping of an ecosystem. Using the example of the Dutch enterprise Royal Koopmans, which wants to find ways to achieve energy transition, this paper aims to study energy transition in the Netherlands from a systemic point of view by addressing the topic of multi-stakeholder dialogue and by adopting a holistic vision (Bardy and

Massaro, 2015). This way, the paper first looks to identify the relevant stakeholders and their visions and roles to play in the energy transition and secondly to draw the links between them to get a better understanding of how they could interact with a company like Royal Koopmans. By doing so the paper not only intends to paint a comprehensive road map for Dutch companies willing to engage in the energy transition but also highlight existing barriers and how to overcome them. The paper also aims to contribute to the multi-stakeholder and holistic approach to sustainable development (Bardy and Massaro, 2015).

THEORY

1. Energy transition in the Netherlands

Energy transition and fighting climate change in the Netherlands is an important topic regrouping stakeholders from different backgrounds. The Dutch government issued several reports about energy transition and cutting CO₂ emissions however the year 2019 saw an unexpected series of events that questioned the State's strategy and resulted in more radical decisions. The government had already declared liability for its "role in causing dangerous global climate change" in 2015 (Graaf and Jans, 2015) by the Hague District Court. The Dutch government was ordered by the court to cut its CO₂ emissions by at least 25% compared to 1990 (The Hague District Court, 2015). The decision was appealed and ruled out in December 2019 by the Supreme Court of the Netherlands. The normative pressure exerted by NGOs and the civil society (Berrone et al., 2013), in this case URGENDA, on public institutions shows that fighting climate change should no longer be a side project. The URGENDA Foundation used the argument that climate change is to be considered as a human right issue (Leijten, 2019) and raised awareness on a national and international scale. Another event in direct relation with climate change is the sudden decision to stop extracting natural gas in the Groningen gas fields by 2022 (New York Times, 2019). While there are issues with natural gas concerning its CO₂ emission – coming mainly from leaks during the transportation process – the consequences of drilling lead to this decision.

The province of Groningen was struck by a series of minor earthquakes which have been attributed to the drilling and extraction of natural gas with the latest one happening in May 2019 (Reuters, 2019). Sine and David explored the relationship between environmental jolts and industry innovation (2003). Their paper examined the role of jolts in mobilizing different actors to reform existing institutions in this case the US power industry. They found a negative correlation between "environmental stasis" and innovation (Sine and David, 2003). Environmental jolts such as the sudden closure of Groningen gas fields can act as exogenous shocks that raise awareness among the different stakeholders. Regarding the case of the Dutch company Royal Koopmans, the abrupt change of perspective regarding the future of natural gas has encouraged the firm to look for solutions to comply with incoming regulations.

2. Understanding the motives to engage in energy transition.

The broader topic of drivers of sustainability has been extensively studied by authors such as Hart and Milstein (2003), Porter and Kramer (2011), Ambec and Lanoie (2008) or Marcus and Fremeth (2009). Most of these papers focus on changing the prism through which sustainability is perceived in companies. "Most managers frame sustainability not as a multidimensional opportunity, but rather as a one-dimensional nuisance" (Hart and Milstein, 2003) and theory on manager adhesion in change frame it as a critical success factor (Autissier and Vandangeon Derumez, 2007). As a result, legitimising sustainability as a process worth investing for has been done in various ways to prove that sustainability pays on different levels like economic gains through cost reduction or increased profit (Ambec and Lanoie, 2008), reputational gains (Berrone, 2010, Delmas and Lessem, 2014), innovation (Hart and Milstein, 2003), compliance to normative and regular pressure (Berrone et al, 2013). Understanding the reasons a company thought about energy transition in the first place can give us an indication of the stakeholders and partners to prioritise as well as how one should visualise the ecosystem (Cohen, 2004) the company lives in.

a. *Creating profit and limits of unidimensional motives*

Promoting the possibility to increase economic gains remains a safe way to get the board of directors as well as the shareholders to consider sustainability as a credible path. One has to remember that this view of sustainability, that is heavily linked to the Friedman doctrine (Friedman, 1970) according to which the main objective of a company is to create profit to fulfil their responsibility towards its shareholders, is less and less common. Authors like Porter (1991) have highlighted the links between pollution and inefficient resource usage leading to less profit showing that tackling pollution has a positive economic impact. Ambec and Lanoie (2008), studied this relationship between pollution reduction and increased financial results and added to the theory on this topic by listing a set of strategies to increase revenues and reduce costs through the improvement of environmental performances. Interestingly the paper in question describes several opportunities of non-financial value creation – reputation, stakeholder relationship, product stewardship – however its tone is still set on putting forward potential financial benefits. One could say that this has to do with the fact that the paper is aiming to convince top-managers to invest in sustainability for economic reasons while still dismissing other types of motivation.

b. *Multidimensional approach*

On the other hand, Marcus and Fremeth (2009) bring another point of view of the win-win approach. Profit-making is definitely seen as a driver however it is not the main motive and the authors try to demonstrate that sustainable management and engaging in sustainability in a broader sense matters regardless. In this paradigm, engaging in sustainability means developing new skills, potentially pioneering the industry and putting an intrinsic value on nature. Similarly to Ambec and Lanoie (2008), this point of view acknowledges economic value creation but it is described as a consequence of sustainability rather than the main motive for investing in sustainability. This approach is also represented in Hart and Milstein's paper "Creating Sustainable Value" (2003). It provides a concrete explanation of the depth sustainability can have by categorising the value created by time (long and short term) and affected entities (inside and outside the firm). The "sustainable value framework" defines four types of sustainable value being innovation and repositioning, growth path and trajectory, cost and risk reduction, reputation and legitimacy (Hart and Milstein, 2003). Engaging in sustainability is seen as an opportunity rather than a mandatory and costly concept.

c. *Legitimacy and external pressures*

According to the existing theory (Powell and DiMaggio, 1991; Scott, 1995, 2005; Suchman, 1995), organisations seek approval and are thus subjected to social influence. DiMaggio and Powell (1991) suggest that cultural norms, symbols, beliefs can be as if not more impactful on the organisation environment than technological or material imperatives. Suchman (1995) defines legitimacy as "a generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions". Legitimacy is important for any type of organisation though some might need it more than others. Companies that are embedded in a local context and that claim affiliation to the local community have to establish their legitimacy as members of the community since it provides them visibility and long term financial returns (Berrone et al., 2010). According to Berrone et al. (2010), family-owned companies are not only subjected to institutional pressures but they are more willing to comply with social and legal norms in a proactive way since they derive direct satisfaction from satisfying their community.

External pressures have a significant impact on the decision to engage in energy transition (Berrone et al., 2013; Berrone et al., 2010). The sources of pressure are diverse and firms are impacted differently based on several factors such as their embeddedness in the local culture and economy as explained previously, the composition of their board of directors, their size etc (Berrone et al., 2013). According to Scott (1995), three types of pressure categorised as 'pillars' are exerted on organisations, regulatory exerted by governments and policymakers, cognitive which can be summed up as the result of cultural codes and normative pressure exerted by non-governmental institutions. Berrone et al. (2013) focus on regular and normative pressure which they regroup under the broader term of institutional pressure.

The study led by Berrone et al. in 2013 on the relationship between institutional pressure and environmental innovation has shown a significant link between the two. The impact on organisations goes beyond greenwashing measures since they're riskier and require bigger financial commitment. The objectives are set on the long term and companies and their shareholders are more reticent to invest into them. Apart from satisfying legitimacy imperatives, there is no justification for this type of investment in the short term. This makes external stakeholders an integral part of the company's decision making even when it comes to important investments and suggests that companies are part of a greater interconnected network of participants.

3. Ecosystems and networks

This paper makes the assumption that companies don't operate in the vacuum but rather are part of a complex ecosystem that they have to consider to make more impactful decisions (Singer, 2006). The institutional pressure that pushes companies to invest more in sustainability (Berrone et al., 2013) are a good indicator that firms can't operate without considering other participants. Since sustainability is a wicked problem (Churchman, 1967), adopting a unidimensional approach means that the firm could increase or create a problem by solving one, in this case achieving energy transition. Identifying actors and collaborating with them is thus crucial to navigate efficiently and be aware of all entities that will be affected, positively or negatively by the company's energy transition. Also, this implies that the elements of the ecosystem don't strive in the same direction meaning some of them could hinder the company's success or help it achieve it. The existing theory provides clues as to how to perceive the ecosystem, engage in multi-stakeholder dialogue in order to acquire a holistic approach (Bardy and Massaro, 2015).

The term of ecosystem is rather broad and the fact that it has been democratised in recent years means research about it has been scattered and that it can be hard to agree on a solid homogeneous definition (Thomas and Autio, 2012). The term was made well known by Moore in 1993 and since then has been used as a metaphor to designate a complex strategic network of organisations that operate around a main platform or institution (Moore, 1993). Thomas and Autio (2012) define an ecosystem as "a network of interconnected organizations, organized around a focal firm or a platform and (that) incorporates both production and use side participants". According to Zahra and Nambissa (2011) the business ecosystem encompasses the global networks and ecosystems within which the firm competes.

Thomas and Autio (2012) mention that there are two schools of thoughts regarding the uniqueness of the characteristics of the ecosystem and its inclusion of side participants. The first one differentiates ecosystems from the other types of networks such as clusters, industry networks or innovation networks. The second one includes ecosystems in a broader part of the literature that also includes strategic networks, business networks or value networks. To make the term of ecosystem more precise, Thomas and Autio (2012) define three characteristics that provide a better outline of the nature of an ecosystem, which are the logic of value, the symbiotic relationship of the participant of the ecosystem and finally the institutional stability within the ecosystem. Though these characteristics are based on the implications of ecosystems in the field of management they can still be applied to the vision of the ecosystem that this paper aims to work with.

Other etiquettes and concepts have similar approaches. Authors like Etsy and Porter (1998) and Korhonen (2004) have studied this under the etiquette of industrial ecology and ecosystems. Korhonen (2004) draws a connection between the biological definition of the ecosystem and solving sustainability issues showing that it can be used as a metaphor to approach those issues in a systemic way, "The idea of the metaphor is that industrial ecosystems function according to the system development principles of natural ecosystems". This aspect is similar to Thomas and Autio's (2012) vision of the ecosystem especially concerning the symbiotic relationship of the participant. For this reason, the ecosystem approach is relevant as a symbol and as a concrete model of the interactions of its participants. Industries are often part of clusters that can be transformed to become more sustainable through the connection of all the elements that compose it to create a loop.

In this paper, the focus is on the Dutch company and the ecosystem it operates with. Though an ecosystem can still be broad, one can fragment it in smaller groups to get a more organised perspective

on it. Since the relationship between participants can be described as symbiotic (Thomas and Autio, 2012), every category of the ecosystem has its importance but not necessarily all have the same degree of influence over a company (Cohen, 2005). The categorisation of the components of an ecosystem and the influence it has on specific activities has been studied by Cohen (2005) and Isenberg (2011) on the specific topic of sustainable entrepreneurship but the existing literature doesn't clearly tackle the influence of ecosystems and stakeholder on a company's transition. The information on this topic is scattered over different studies.

Kemp (2010) describes that the Netherland approach of the sustainable transition already includes concepts of multidisciplinary research and partnerships within the Knowledge Network for System Innovations and Transitions but it doesn't mention different groups of stakeholders evolving in separate organisations.

Informal networks of stakeholders otherwise known as shadow networks are known to facilitate the transition towards more sustainable socio-ecological systems (Gunderson 1999, Olsson et al. 2006, Pelling et al. 2008, Bos et al. 2015). The influence of such networks is seen on the support that radical sustainable transition receives (Wutich et al., 2020). The study showed that more attention needs to go into identifying and developing these supportive "shadow networks" to make sure they go "from niche to regime" (Wutich et al., 2020). Another interesting opinion regarding the importance of considering can be found in a study led by Fischer and Newig in 2016 in which they state that "initiatives towards transitions mostly depend on business communities and on civil society".

Overall, the theory on the impact of networks or ecosystems on the fulfilling of the energy transition is still too limited to this day despite the fact that the impact of external stakeholders on businesses has been extensively studied.

METHODOLOGY

1. Gathering data

a. Internal information

This paper uses in-house information provided by the company Royal Koopmans to identify the stakeholders concerned by the company's desire to operate energy transition. This information has been gathered during meetings with the team in charge of the project and by using the existing theory to make assumptions as to which stakeholders to address. More precisely, the information gathered internally concerns existing partnerships and relationships with local and national organisations. The existing theory regarding companies like Royal Koopmans suggests that they might be more likely to focus on the local community that they claim to be part of, in this case, Friesland. The regulations and directives that concern energy transition are set at different scales, local, regional, national and even European. However this study focuses on the first three levels of policymaking.

Company meetings were set to determine what sort of questions Royal Koopmans was facing. Identifying what the company struggles with can indicate specific stakeholders to address. Previous discussions with the company highlighted uncertainty regarding financing, infrastructures and legal framework.

b. External stakeholders

The chosen interviewees are both the result of a discussion with Royal Koopmans about the stakeholders that the firm judges as relevant to its project as well as an analysis of the current context and it's influential stakeholders. Participants 1, 2 and 3 are representatives of public institutions at the local (1), regional (2) and national (3). Participants 4 and 5 are companies that have a strong attachment to sustainability with the first helping companies with their sustainable transformation (4) and the second

one being a pioneer in terms of sustainable innovation as well as a local actor of sustainable transition (5).

These stakeholders are both knowledgeable as to what the current and possible future regulations will be and capable of helping a company like Royal Koopmans with project management and financing. In addition, the people interviewed were either familiar with the company either because they already had been in touch with them or simply thanks to their proximity to the company. In cases where the interviewee would not be personally familiar with the company, a brief summary of Royal Koopmans was provided to start the interview so that the interviewee could relate to other companies in the same situation.

The interviewees were contacted by email and offered to do a semi-structured interview (Rowley, 2012). The interviews were conducted by phone and video calls. The reason why this type of interview was chosen was to enable in-depth analysis of the relationship between the interviewee and a company like Royal Koopmans. The interviews provided answers concerning their opinion of the current energy transition context(1), the role the organisation plays in the ecosystem regarding energy transition(2), does the interviewee perceive difficulties or opportunities regarding the energy transition process(3) who are the organisation's main partners(4), what is their opinion regarding Royal Koopmans (if none do they know other companies in the same situation)(5) and what do they expect from them(6), what can the interviewed organisation or person provide to a company like Royal Koopmans (counselling, networking, financing)(7). During the interview, the interviewer guided the interviewees by giving occasional probes. The precise situations and struggles of Royal Koopmans which are mainly disclosed internally were not discussed before the interview started so that the interviewee could give an unbiased opinion of the company and what they expected from it. The interviews lasted between 45 minutes to one hour and gave time to the interviewees to ask questions and bring up important points that may have not been covered in the questions asked (see Appendix 1).

2. Analysis

The interviews were transcribed and analysed by the interviewer. The focus of the analysis was on identifying the stakeholders mentioned by the interviewee as well as the type of interaction that the interviewee described between the company and the said stakeholder. Since this study attempts to answer the question of interaction from the point of view of the company it categorises the interaction in terms of the role of the firm in the interaction.

The roles of the company were categorised as “Receiver”, “Provider”, and “Mutual Contribution”. The receiver role implies that the company is subjected to the decisions and actions of a said stakeholder, i.e. follow the policies, or that it can benefit from pre-existing plans to help it, i.e. grants or strategic advising plans for companies with sustainable projects.

The provider role implies that the company is the one creating the interaction with the stakeholder, i.e. identifying needs of local communities, raising the environmental awareness of locals and customers.

Finally, mutual contribution signifies the situation where the company is collaborating with one its stakeholders with each providing something for each other, i.e. collaborating with other local firms to reuse excess heat, doing collaborative sustainable projects with other companies or innovation centres.

These three categories were highlighted in different colours in the transcripts to make the nature of the interaction and the role the company plays stand out.

To get a better visualisation of what interaction was attributed to a said stakeholder, the results were then put in a table that classifies the interactions per stakeholders (see Appendix 2). To assess their significance, we used * to mark the recurrence. One * equals one interview in which a said type of interaction was attributed to a designated stakeholder.

RESULTS

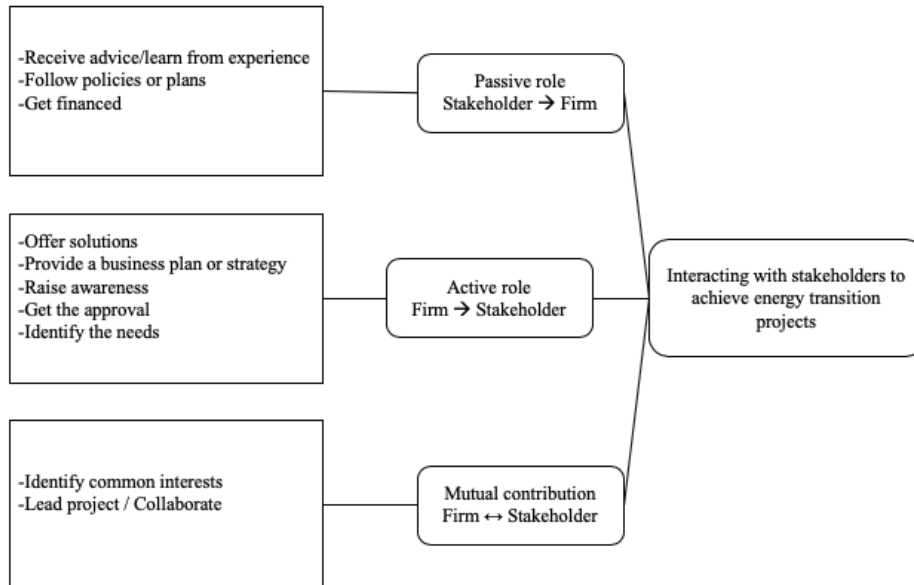


Fig 1 Coding tree

3. Receiver role with stakeholders (See appendix 2 part 1)

a. *Advising and knowledge sharing*

Knowledge and experience are attributed to numerous stakeholders and is evenly distributed among most of those that were identified. Only customers, local initiatives and farmers were not explicitly identified in the category. Education institutions*** were brought up three times by participants 2,4 and 5. Participant 2 said, *“I think that students have a role to play in helping the companies from the inside”*. According to participant 4, the development of proper education on the topic of climate change and energy transition has led to a favourable ecosystem for energy transition projects, *“It’s a better ecosystem, the universities, the high-schools, they are preparing the young people for this kind of topic”*.

The interviewees mentioned numerous enterprises that may be able and willing to share and disclose information regarding how they dealt with similar projects. This paper groups them in a category named sustainable front runners. In this group appear companies like OMRIN*, a Frisian waste management company that developed renewable energy technologies and promotes circularity and cleaner energy on a regional and national scale. Ekwadraat**, a consultancy company specialised in renewable energy solutions and strategic advising. The Philips Innovatiecluster of Drachten* and additionally, participant 5 referred to *“entrepreneurs”*** in a broader way. and insisted on their *“pioneering”* nature. The comments made on the actors of this broader category were mostly the same. Participant 5 defined their role as *“the entrepreneurial side will consolidate your business case and help you pass the difficult parts”*. A common point that the interviewees made was the fact these enterprises and entrepreneurs were front runners, insisting on the fact they were to be followed.

Energy companies* and financing institutions* were mentioned by participant 4 for having teams of experts who are able to advise Royal Koopmans. *“When you go to financial partners like ING, Triodos they have their specialities and professionals in this area. Same for energy companies like ENGIE or Vattenfall”*.

Other industrial companies** were mentioned by interviewer 1 and 2 as actors to *“learn from”* such as models to follow and replicate.

Governmental institutions were mentioned four times, the municipality**, the province* and the RVO*.

b. Following policies

As expected, Royal Koopmans is expected to follow the policies, though some participants like participants 1 and 5 insisted on the firm choosing its own path without waiting for policies to evolve. Participant 1 explained that Royal Koopmans “*can do two things depending on what the government is going*” to say, either wait for subsidies or “*have their own opinion and plans about what their sustainability is going to be*”. Participant 5 added, “*I expect proactivity from them and not to wait for the regulation or for the public opinion*”. The municipality was identified by participant 2 as the main actor in terms of policy** whilst participant 1 said the province was the more influential out of the two(***)).

4. Provider role with stakeholders (See appendix 2 part 2)

Over the course of the five interviews, five ways to interact actively with stakeholders were identified by the interviewee. The two that came back to most often are “*providing a proper business plan*” or “*strategy*” depending on the interviewee and “*identifying the needs*” of some stakeholders. The interviewees also mentioned “*getting the approval*” of certain stakeholders, “*raising their level of awareness*” and coming up with “*solutions*” that benefited the stakeholders.

a. Business plans

The term business plan was used in every interview. Participant 1 mentioned it several times regarding the municipality*. Participant 2 mentioned it for the Province of Friesland**. Participant 3 mentioned it for the Dutch enterprise agency*. Participant 4 used it for Ekwadraat*, financing institutions** and energy companies*. Participant brought it up when talking about the province** and financing institutions**. In all of the interviews, the business case was needed to have access to the benefits that the stakeholders provided in the receiver role section, more specifically to have access to financing and permits.

b. Identifying needs and raise awareness

Royal Koopmans is expected to be proactive with all the parties involved in its chain of value. According to interviewees, customers*** and locals** were to be consulted regarding their needs and expectations to enable Royal Koopmans to make the needed adjustment to its production process. Participant 2 said, “*For this kind of investment it’s also about how and what will RK produce in 30 years and what does the customer want*”. Participant 4 equally mentioned the need to consult the customers*** to improve the environmental performance of Royal Koopmans. Participant 1 stated that “*All of the people involved from the farmer to the consumers have to be taken into account*”. Participants 1 and 2 cited local initiatives to emphasise the need to understand its surroundings to then be able to convince them and provide for them in the most appropriate ways.

Raising awareness was attributed to the same stakeholders as identification of needs. Royal Koopmans have a role to spread awareness amongst the local population. Participant 2 stated, “*When you zoom in on the Province of Friesland, the local support is one of the biggest challenges. How can you make people care and participate?*” and added later “*I don’t think awareness is very high (in Leeuwarden) [...] These companies have large fences around their factories, so what they do is kind of hidden*”.

Royal Koopmans and companies alike have a role of patron of the energy transition and sustainability in general. This role is also a way to get the approval of these stakeholders.

c. Getting the approval of the stakeholders and offering them solutions

Local initiatives and neighbours** were portrayed as potential barriers to energy transition projects by participants 2 and 5, especially when they involve visible energy plants such as solar energy plants or

wind turbines. These installations are however supposed to bring an answer to their needs according to participant 2. He asked: “*Can Royal Koopmans make a gesture towards them (the community) by providing heat or being the catalyst of warmth (heat) or other solutions? Bottom line: can they help their neighbours*”. According to him, the firm has a duty to fulfil on a local stage. He added “*Royal Koopmans has to be able to be sustainable not only for itself but for the entire community*”. Two participants attributed to Royal Koopmans the role of providing solutions to their local communities.

5. Mutual contribution with stakeholders (See appendix 2 part 3).

The final type of interaction studied in the interview is the mutual interaction with external stakeholders. This type of interaction refers to actions and projects that rely on collaboration and partnership. The relationship is supposed to go both ways and the stakeholders and the firms were described to have similar interest according to the interviewees.

a. *Industrial peers*

The most prominent mutual contribution described is between the firm and its industry peers. Four out of five participants expected from Royal Koopmans to collaborate with other companies of similar scale and interests. More precisely, Participant 2 stated “*Other companies, of same size as Royal Koopmans, such as Friesland Campina [...]*” on a local scale should be a top priority for Royal Koopmans, stating that they “*[...] should be their primary partners*”. Participant 2 continued by saying that “*they all have the same interest. They are not competitors but they all need heat to run their factories. They should see what they can do with each other*”. Participants 3, 4 and 5 gave similar responses on this topic.

b. *Government*

Mutual contribution between Royal Koopmans and the various levels of government, local****, regional*, as well as governmental agencies*, were mentioned seven times collectively for common interest sharing and collaboration opportunities. Both participants 1 and 2 mentioned the importance of identifying shared interest and collaborating possibilities between Royal Koopmans and the municipality of Leeuwarden. Participant 1 highlighted the fact that the local government “*have claimed [...] that they want to be in the lead for the sustainable transition*” and insisted on the fact that Royal Koopmans got in touch with the local governments to integrate the plans of the municipality. He added, “*I think there is a national path and a more local path and that is the role of the Gemeente Leeuwarden. They have to make transition plans for their territory*”. Participant 1 mentioned plans of “*an innovation centre at Koopmans Meelfabriek*” as well as “*informing the customers more about the product they were selling*”. Participant 2 also spoke of the possibility of helping the creation of a “*coalition*”. On a regional level, the Province was designated as a potential partner to gather regional partners and discuss energy transition in a context that favours public awareness. Participant 1 says, “*our deputies can invite the biggest companies in Friesland to come to Ljouwert and talk it out so we can talk about how to run the transition [...] it would raise awareness from both companies and citizens*”. Finally, the national agency for enterprises, otherwise known as RVO, was also mentioned for its “*long term agreement possibilities*” (participant 3). Long term collaborations seemed to be the preferred way of interacting.

c. *Farmers*

The concept of working with all the links of the chain of production was mentioned several times but only the farmers were explicitly categorised in the collaboration category. Close collaboration with the stakeholders throughout the whole chain to reduce CO2 emissions and find alternative ways of powering the factory was brought up by participant 2 which identified that “*a natural partner for both Royal Koopmans [...] are farmers******”. For participant 2, Royal Koopmans should look to use “*manure*” for green gas and look to implant wind and solar energy plants in collaboration with the farmers. Participant 1 considered working with farmers on the energy and value going into the production as it was the first link of the chain of value. The farmers were mentioned twice regarding the identification of shared

interests or complementarities and twice as partners to lead common projects both times by participants 1 and 2.

d. *Front runners and innovators*

Finally, the contribution and collaborative work that had to be led with sustainable front runners and innovation centres were mentioned five times. Participant 2 mentioned the “*Philips Drachten Innovatiecluster*”. The sustainable consultancy company “*Ekwadraat*” was mentioned two times by participants 2 and 4 and the waste management company and regional sustainable front-runner “*OMRIN*” was identified twice.

DISCUSSION

Theoretical implication

The interviews as well as the literature review have made it clear that the stakeholders interviewed have awareness and knowledge about the ecosystem that surrounds them. The term itself was mentioned by participant 4 and participants 1, 2, 4 and 5 insisted on the importance of considering all the people involved from the farmers to the consumers. In fact, four out of five participants stated that their expectation regarding Koopmans futures sustainable projects was that they would adopt a “*holistic*” point of view (Bardy and Massaro, 2015) and that they would not neglect any part of their value chain. Those same participants all evoked that though the energy transition was a big investment it would still be superficial or insufficient if it didn't trigger a complete re-assessment of the production chain. According to the people interviewed, the firm has to consider its stakeholders to achieve a satisfying outcome that will benefit the members of the ecosystem in various ways as well as secure a viable long term strategy for Royal Koopmans. Additionally, according to participant 4, the ecosystem has evolved during the recent years to provide a better framework for energy transition projects implying that the components of the ecosystem were in fact influencing the current projects.

This correlates with the ideas developed in the literature regarding stakeholder influence on companies environmental investment and decision-making (Berrone, 2010, Berrone, 2013) and also echoes to the concept of business ecosystems (Cohen, 2005, Thomas and Autio, 2012, Zahra & Nambisan, 2011, Fischer & Newig, 2016).

Some interviewees have also introduced the concept of operational effectiveness and strategy. The essence of strategy is choosing a unique positioning and a distinctive value chain to deliver on it (Porter, & Kramer, 2011). A new strategy also implies a new value proposition (Bocken et al., 2014) which was also discussed during the interview with participant 1 who called for a new adagio that Koopmans should adopt. In the participant's opinion, the new value should come from the sustainability of the factory rather than the value of the produce. This research also sheds light on the importance of foreseeing future needs and identifying opportunities in the among the stakeholders of a said ecosystem (Cohen and Winn, 2004).

2. Practical implications

Practically speaking, the study approaches the company's interaction from three points of view, receiver, provider and mutual contributions. Though there are plenty of possibilities for the companies to passively follow current regulations and paths, it was recommended by interviewees to create a singular path to gain the status of front runner (Hart and Millstein, 2003). Participant 1 antagonised two visions of what is expected from Royal Koopmans with the first one being the one of the government which implies passivity from the firm. And the second one is being the pioneer in its domain and creating a new path. This not only implies going beyond operational decisions to develop a real long term strategy but it also expects the firm to develop a really innovative entrepreneurship mindset.

Companies are potential major sustainable actors that need to collaborate to identify complementarities and find the best way to function. Identifying hidden complementarities seems to be one of the first things that come to mind when the interviewees are told the situation of Royal Koopmans. The theory in sustainable entrepreneurship is tied to the ability to recognise opportunities within the markets' imperfection (Cohen and Winn, 2004, Dean and McMullen, 2007). According to Cohen and Winn, there are four market imperfections which can be turned around and used as sustainable entrepreneurship opportunities and firms' environmental inefficiency is one of them. It is expected from Royal Koopmans to interact as a sustainable entrepreneur. This is seen by the interviewees as something that will inherently benefit the local community.

As a company that revendicates its local origins and a long lasting heritage, Royal Koopmans is already attached to the locals and it was said by the participants that the firm clearly belongs to the community with which it has a symbiotic relationship. Because of this, participants stated it is their duty to guide the community and provide it with sustainable solutions. The firm is recognised as a central piece of the regional economy and one can feel that the interviewees are concerned by how the firm will adapt to future challenges (Berrone et al., 2010). A common topic during the interview was on the viability and the resilience of Royal Koopmans. Resilience and path dependency are important concepts in sustainable entrepreneurship.

Companies are potential major sustainable actors that need to collaborate to identify complementarities and find the best way to function. It is part of the sustainable entrepreneurship mindset and one can say it is required to think this way to achieve the energy transition.

Royal Koopmans has to aim to be the pioneer in its field of activity instead of looking for pre-existing options. By re-assessing their chain of value and developing a new and innovative value proposition, Royal Koopmans along-side partner companies could reach a new status and become themselves local institutions just as described by Alvarez et al. (2015).

LIMITATIONS AND FUTURE RESEARCH

This paper attempts to answer how Dutch companies should interact with their stakeholders to obtain the best possible outcome for their plans of energy transition. To do so it assesses three broad types of roles the enterprise can play according to the literature review and the answers given by five stakeholders of the firm in question. This poses several limitations.

The first limitation is the scale and the boundaries of the ecosystem that was studied. Its geographical limits were kept broad despite the need for ecosystems to have rather precise boundaries (Cohen, 2005). Four out of five came from the province of Friesland and are all central actors of the regional ecosystems, a good indicator is the fact they all mentioned each other during the interviews. The last one was a stakeholder at the national level. The decision to expand was made to get a complete understanding of the legal framework and the possibilities allowed by the policies. Participant 1 brought attention to the European Union during its interview stating that perhaps it had better capacities to help the Netherlands with its energy transition than the national government. Since four interviewees were close neighbours of Royal Koopmans, the focus is set on the province of Friesland but this type of response widens even more the boundaries of the ecosystem that was set but only on the policy side.

Although the participants were not redundant and all of them brought unique arguments and opinions to the research, the number of five people interviewed is still hardly representative of the ecosystem. The lack of interviewees is however compensated by the positions held by the people interviewed and the great knowledge that they have of their ecosystem.

However as study progressed it became clear that it was relying on a lot of indirect information. It felt necessary to interview the stakeholders that were mentioned by interviewees. Also despite how influential they are an ecosystem is composed of a variety of actors and assessing the ecosystem should be done by exchanging information with every type of stakeholders if possible. Finally, the few stakeholders don't enable to triangle the information in a satisfactory way (Denzin (1970: 310)

Another limitation concerns the gender of the interviewees. All five interviewees are males. Two of them, participants 1 and 2 were contacted via the general “info@company.com” email of their structure meaning that the person that accepted to do the interview had been redirected to me internally without my intervention. It is also to be noted that unfortunately none of the women that were contacted gave follow up to the interview propositions that were sent also categorising by gender is not seen as really efficient or useful (Wilson, 1995).

Considering these limitations future work would imply doing more research on specific groups of stakeholders to prevent the study from oscillating between “thematic stakeholders” i.e. policymakers, and “local stakeholders” i.e. the ones operating in Friesland.

In addition, the collaboration with other businesses is a very important aspect of Royal Koopmans’ interaction goals and thus a study dedicated to the types of partnerships and collaborations that could occur would seem very appropriate.

CONCLUSION

In conclusion, the study gives an opportunity to influential stakeholder to communicate their expectation to large firms. It attempted to provide industrial companies in the Netherlands with an overview of their most important stakeholders and a plan on the actions they are expected to do. The study came out with a repartition of their action in three categories: receiver, provider and mutual contributions.

We suggest that Royal Koopmans and companies with similar characteristics and interests have a prominent role to play with their stakeholders. The ecosystem provides varieties of opportunities to seize to increase the actors knowledge and interactions. Perhaps the most important eternal interaction to develop is the collaboration and the partnership with other companies. The results from the interview as well as the literature on the subject shows that there are opportunities for companies to free themselves from the inertia and become in turn a source of innovation with renewed possibilities. However, the companies should not minimise the importance of their internal stakeholder. Focusing on their chain of value and their long term strategy is key to achieve a successful energy transition.

There is still a lot to explore in terms of stakeholders’ interaction and ecosystems and this paper attempted to contribute to the topic to increase the companies’ understanding of it.

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APPENDIX

1. Appendix 1: Interview guide

[Foreword]:

My research question is set on finding out how Dutch companies, in my case Royal Koopmans, can interact with stakeholders with regards to their energy transition.

To summarise the situation of Royal Koopmans, this company mainly runs on natural gas and is scheduling to switch to cleaner alternatives. However they haven't fully clarified the nature of the role they had to play and who were they're main partners in this project.

My baseline is that the firms evolve in an ecosystem or a network if you want that is composed of several groups of stakeholders which influence each other.

These stakeholders all have different roles and objectives whether it is public institutions, NGOs, civilians, companies etc.

My objective is to first identify who are the actors of the energy transition and then describe their expectations, opinions regarding the current context and the role companies like Royal Koopmans should play according to them.

The end goal is to be able to position these stakeholders and see how they can influence a company's energy transition project.

To be clear I don't work for Royal Koopmans and I am not affiliated to them. I'm trying to do an independent research.

The interview is segmented in 7 greater themes which are:

1. Can you introduce yourself and explain the role you play with regards to the energy transition?
2. What is your opinion regarding the way energy transition is currently being conducted in the Netherlands?
3. What opportunities and difficulties do you perceive regarding conducting the energy transition currently?
4. Are you familiar with the company Royal Koopmans or other industrial firms that wish to change their energy sources and what is your relation with this firm?
5. Who do you identify as the main stakeholders that Royal Koopmans and similar companies have to consider regarding their project of energy transition?
6. What do you expect from a company like Royal Koopmans regarding its energy transition?
7. What could you do for/with companies like Royal Koopmans to facilitate the energy transition that you haven't already done yet?

2. Appendix 1: Table of results

a. Part 1: Receiver role

		External Stakeholders														
		Customer s/ Consumer s	Local initiatives and neighbours	Farmers	Regional industrial firms	Ekwadraat	Entrepreneu rs	Innovation center	Energy companies	Financing organisatio ns	Education institutions	OMRIN	Municipality of Leeuwarden	Friesland Provincie	RVO	National governeme nt
Receiver: Stakeholder ==> Firm	Receive advice/lear n from				**	**	*	*	**	*	***	*	**	*	*	
	Follow policies/pla n of											**	***		***	
	Get financed by								***			*	*	*		

b. Part 2: Provider role

		External Stakeholders														
		Customer s/ Consumer s	Local initiatives and neighbours	Farmers	Regional industrial firms	Ekwadraat	Entrepreneu rs	Innovation center	Energy companies	Financing organisatio ns	Education institutions	OMRIN	Municipality of Leeuwarden	Friesland Provincie	RVO	National governeme nt
Provider: Firm ==> Stakeholder	Offer solutions to		**													
	Provide a business plan to					*		*	**			*	**	*		
	Raise awareness of	***	**													
	Get the approval of		**													
	Identify the needs of	***	**													

c. *Part 3: Mutual contribution*

		External Stakeholders														
		Customer s/ Consumer s	Local initiatives and neighbours	Farmers	Regional industrial firms	Ekwadraat	Entrepreneu rs	Innovation center	Energy companies	Financing organisatio ns	Education institutions	OMRIN	Municipality of Leeuwarden	Friesland Provincie	RVO	National governeme nt
Mutual contribution : Stakeholder <=> Firm	Identify common interests			**	***				*			*	**			
	Lead project / Collaborate			**	****	**		*	*		*	*	**	*	*	