Stakeholder Engagement for Student Entrepreneurship

A clear view of how stakeholder engagement supports student entrepreneurship

Abstract

The thesis reviews relevant determinants of stakeholders in contribution on the choice to invest in student entrepreneurship. focusing on the interrelationship of social, economic, and environmental benefits converging on sustainability.

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Executive Summary

The objective of this dissertation was to research the extent Stakeholder Engagement supports Student Entrepreneurship. In order to better understand how these challenges and opportunities effected engage intention between stakeholders and entrepreneurs, an overview of the Stakeholder Engagement Criteria will be provided. Furthermore, to further analyse how student entrepreneurs are faced by stakeholder challenges, an in-depth analysis of what the studied case from HTET expected stakeholders to do will be given.

Based on the research question, two research methods were used: desk research and a semi-structured interview with a senior software engineer of the Ministry of the Interior and Kingdom Relations of The Netherlands. Desk research was used in order to find reports, papers and articles that would help answer the research question. The semi-structured interviews were a useful way of finding out more information on subjects such as the steps in stakeholder value, what the Research groups in alternative energy generation learnt from student entrepreneurship and if stakeholder engagement had any impact on invention and growth metrics.

The research showed that Stakeholder Engagement faced three operational benefits during its engagement process for Student Entrepreneurship. These three operational benefits were the social benefits, the economic benefits and the environmental benefits. These operational benefits all had a different effect on the stakeholder engagement process. The social benefit was the lead that provided conservation, issue awareness and community involvement. The economic benefit contributed to Student Entrepreneurship in terms of profitability, sustaining growth and retrenchment. In addition to this, it combined the salient attributes in stakeholder engagement while other typologies could be classified, generating new leads. Finally the environmental benefit had impact on employing invention, waste reduction and dialogue. These three operational benefits will be analysed in chapter five of this paper.

All in all, it can be said that Student Entrepreneurs are faced with many challenges and opportunities to strengthen their stakeholder relationships. In order to avoid mal implementation of Stakeholder Engagement strategies for Student Entrepreneurship initiatives, personal recommendations as well as recommendations made by all participated stakeholders will be stated at the end of this paper.

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List of Abbreviations

BM	Be Monitored
CW	Companies with Wastewater Discharges
FW	Factories with Wastewater Discharges
HTET	Hydro Turbine Energy Technology
KI	Keep Informed
KS	Keep Satisfied
LC	Local Communities
MC	Manage Closely
O/S	Opportunities/Strengths
SSV	Steps in value for stakeholders/Stakeholder Value
SE	Student Entrepreneurship
S/E	Stakeholder Engagement
W/T	Weaknesses/Threats

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Chapter 1: Introduction

‘‘Traditionally, entrepreneurs were competitive and secret individuals. Today, the opposite is true. Entrepreneurs can break down barriers and/or encourage each other to work together. The interest of the 21st century entrepreneur lies in engaging with other people running businesses and entrepreneurial initiatives. There is more of a community aspect. They are not merely driven by money. Although, plenty would be keen to have some financial gain at the end of running a project, but this is not the goal. Instead, the next generation of entrepreneurs are driven by the potential to do things better and to create value for society. In specific, Student Entrepreneurs are often interested in applying an alternative business model or way of thinking to a problem’’ (Sladdin, 2016).

The manner in how these companies and student entrepreneurs induce differentiation and positioning strategies is foundational to understand how their offering will realistically be valued by the target users and involved parties. It supports all stakeholders to identify what the primary focus and goals are and plan for who, when and how to improve their Stakeholder Engagement (Wood, 2014). Many recent studies research the reasoning why today’s entrepreneurs are investing more in the value for stakeholders. A few examples of such studies are: Why Entrepreneurship has won![1] and Stakeholder Theory, Value and Firm Performance.[2] These studies help to reinforce the Stakeholder Engagement Criteria and outline how entrepreneurs can set goals and objectives to enhance their business, decision, and project from the very beginning.[3]

1.1. Research scope

Professor Howard Stevenson (2000) defines entrepreneurship as the pursuit of opportunity beyond controlled resources. ‘Pursuit’ implies a singular, relentless focus. Entrepreneurs often perceive a short window of opportunity. This is seldom seen in established companies, where resources are more readily available. ‘Opportunity’ implies an offering in one or more ways. Thus, the word entrepreneurship is elastic, because for some it refers to venture-capital backed start-ups, for others,

[1] Article from Stevenson (2000) about why entrepreneurship has won and how organisations strengthen their initiatives.

[2] Assessment on the extent social, economic and environmental concerns raised by stakeholders encourages entrepreneurs to improve their performance, from Harrison et al (2013).

[3] In this regard Laszlo (2008) argues stakeholder value and sustainability as a largely untapped source of competitive advantage and the problems of sustainable development.

to any small business, or simply the student entrepreneur that is enrolled at a college university to integrate initiatives for purpose and profit (Stevenson, 2000).

Stakeholder Engagement is defined by getting a business closer to its goals and objectives. 'Stakeholders' refer to anyone who is influenced, either directly or indirectly, by the actions of a firm (Buchholtz et al, 2013). Nowadays, in our fast-changing environments the term 'stakeholder' opts for a plural perspective, and may be the involvement of customers, suppliers, managers, employees and owners to the community, competitors, suppliers, special-interest groups, the media and society, and the public at large. This form of stakeholder engagement supports entrepreneurs in identifying where to operate more efficiently and interdisciplinary. A company's value could be improved between 40 and 60 percent with stakeholder engagement. However, stakeholder engagement does not guarantee cooperation (Buchholtz et al, 2013).

The current situation outlines that the theory behind how stakeholder engagement converges on sustainability is sound. Stakeholder theory was not developed to advocate for societal interest nor was it about building value for entire economies. Except to the extent as firms and entrepreneurs create more value for themselves and their stakeholders, they are in essence, advancing the interest of society (Harrison et al., 2013).

1.2. Identification of the research

Important factors for stakeholders to cooperate in entrepreneurship are (a) to engage in pioneering a truly innovative product, (b) devising a new business model, (c) creating a better or cheaper version of an existing product and (d) targeting an existing product to a new set of customers (Stevenson, 2000). When entrepreneurs and their stakeholders do not look beyond profit it indicates to review the ensuing of doing a business rather than a specific stage. A limitation in the research would be to identify the value proposition without the determinants that make up the promise of values, benefits to be delivered, communicated and acknowledged.

There is mounting evidence of the importance in coordinating stakeholder interests and, how shareholders/stakeholders' objectives have been successfully achieved, no matter the costs (Laszlo,

2008). Studies in stakeholder engagement and student entrepreneurship give a more complete understanding of the determinants to those achievements (Mitchell et al., 1997; Buchholtz et al., 2012), and how to plan for engaging in stakeholder relationships (Wood, 2014).

1.3. Research objectives

The goal of this thesis is to evaluate the relation between stakeholder engagement and student entrepreneurship; hence the research question (RQ) is: how the role of stakeholder engagement can support student entrepreneurship. In answering this RQ the following aspects will be explored: (1) to give a clear definition of stakeholder engagement, (2) a clear framework in which stakeholders relevant to an entrepreneur or firm can be identified and mapped, (3) to define student entrepreneurship, and (4) to accurately assess how stakeholders contribute or deter to student entrepreneurship initiatives.

The underlying hypothesis of this study is that a clear view of stakeholder engagement supports student entrepreneurs to better identify opportunities and threats and leverage or minimise them.

The outline of the thesis is as follows. Chapter 2 is a theoretical review of stakeholder engagement, and of student entrepreneurship. Chapter 3 provides the justification of the research methods in order to evaluate how the research models or frameworks apply in the studied case. Chapter 4 summarises the findings from the secondary sources (i.e., the studied case), the results of field and desk research. Chapter 5 analyses the findings, from Chapter 3 and 4 by clustering these factors into three groups: social, economic and environmental. Chapter 6 offers the conclusion of the analysis, plausible guidelines, and recommendations.

Chapter 2: Theory and Rationale

2.1. Stakeholder engagement

The theoretical framework of the steps in value for stakeholders (hereafter SSV), firstly proposed by Laszlo (2008), assumes that the decision to invest in stakeholder engagement, defined as 'the process by which an organisation involves people who may be affected by the decisions it makes or can influence the implementation of its decisions' (Laszlo, 2008), is made by comparing (non) monetary benefits and costs associated to this decision. Entrepreneurs may achieve a certain degree of competitive advantage once they are willing to invest in stakeholder engagement. Implicitly, this salience model relies on three assumptions. First, the urgency, and second the power of (non) monetary variables associated to the investment in stakeholder engagement; third, the ability to calculate those legitimate variables; benefits and costs (Buchholtz et al., 2012).

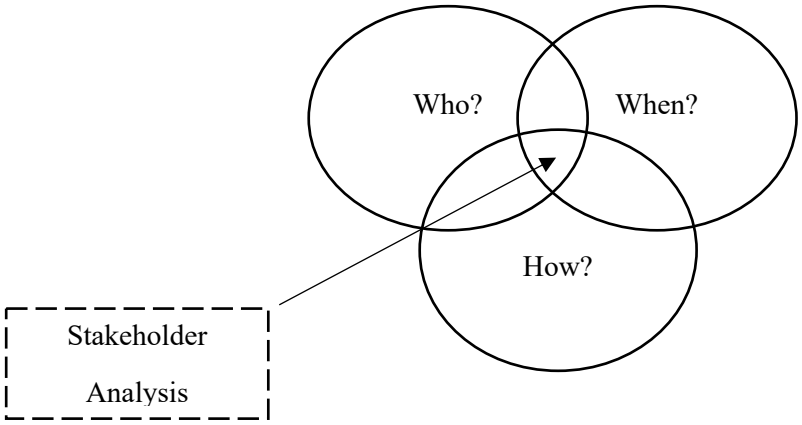
2.2. Stakeholder analysis frameworks

The theoretical frameworks to provide a consistent interpretation to understand and address the concept of stakeholder engagement are: (1) the stakeholder analysis framework; to identify the importance of why stakeholders are involved, (2) the stakeholder classification framework; to interpretate their power, legitimacy and urgency by classifying key behavioural attributes (Buchholtz et al., 2012), and, (3) the stakeholder matrices; to analyse how stakeholders relevant to an entrepreneur can be mapped (Laszlo, 2008).

The stakeholder engagement process is complex. Entrepreneurs do not consider only the economic return to stakeholder engagement, but, more general they consider the overall utility gained in getting there (Mitchell et al., 1997) and the overall costs (included non-monetary costs). Moreover, before investing in stakeholder engagement, entrepreneurs may not be aware of the quality that comes from continuously assessing growth opportunities, their genuine interest to early invest in capturing successes and failures, their immediate abilities and skills to comply with the steps in stakeholder engagement and the effort needed – to reduce costs, differentiate products and service, develop interest in new markets that serve unmet needs and influence industry (Laszlo, 2008).

Random utility models researched and developed for instance by Mitchell et al. (1997), Laszlo (2008), Buchholtz et al. (2012) and Harrison et al. (2013) summarise the steps in stakeholder engagement as a function of (expected) stakeholder performance; utility and value; costs and benefits.[4] In this framework, stakeholder interests and concerns are modelled by applying a sequential process, which exploits the additional information acquired over time. Nevertheless, the set of information improves by knowing the characteristics of stakeholders, its contextual complexity, and their overall ability to be involved. Therefore, the stakeholder engagement process can be represented by the following framework.

Figure. 1 Stakeholder analysis (Buchholtz et al., 2012).



Step 1: Who? Identify who should be involved

Step 2: When? Determining when they should be involved

Step 3: How? Establishing how they should be involved

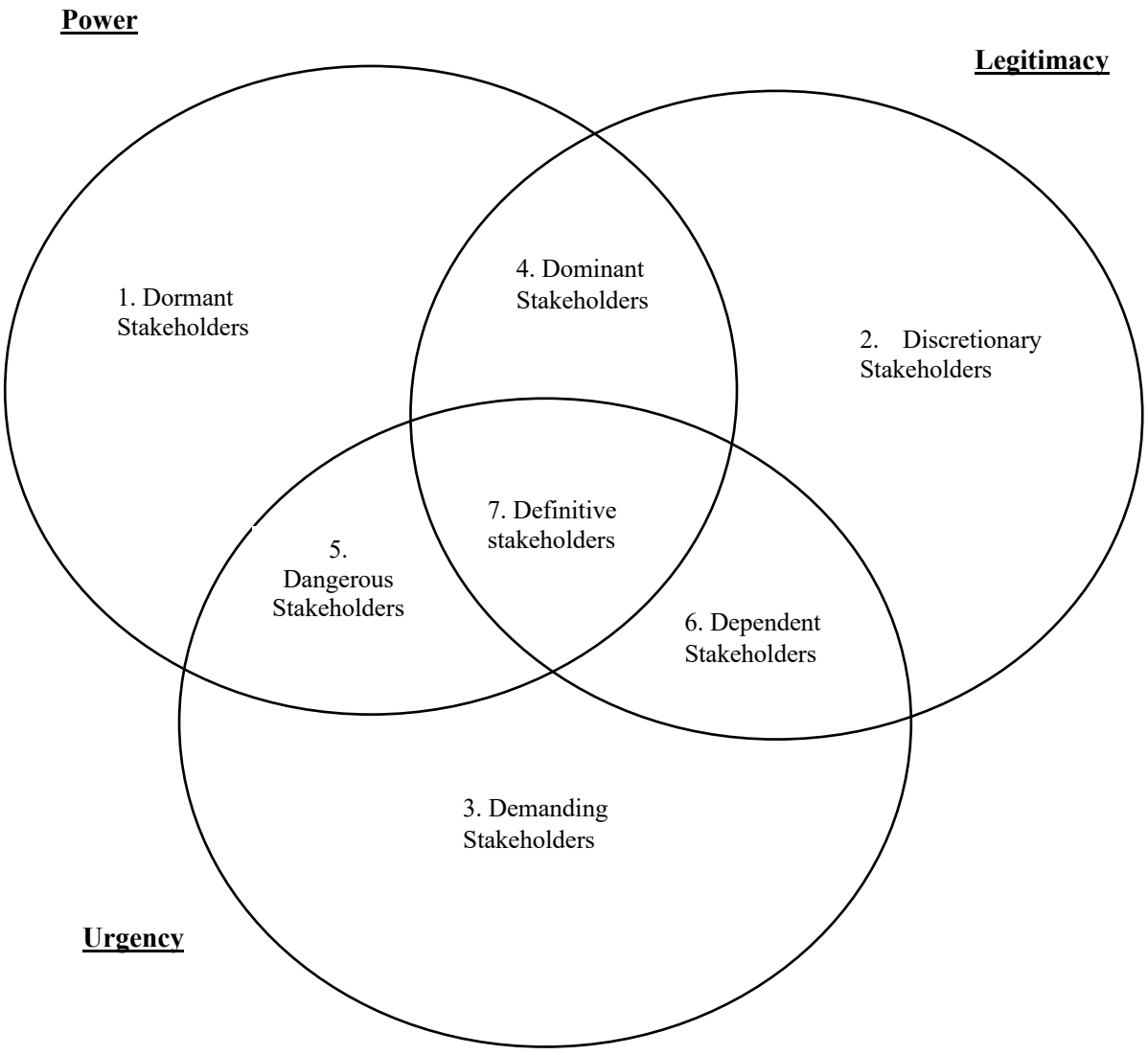
At the end of a given stakeholder analysis the underlying assumption is that organisations adopt a better understanding and can (1) identify internal and external stakeholders, (2) identify concerns; assess the nature of each stakeholders' influence and importance, (3) prioritise and map; construct a matrix to identify stakeholder influence and importance, (4) engage and (5) review & report; (re)define their approach to stakeholder relationships (Buchholtz et al., 2013).

[4] Factors associated to value for stakeholders and new ways to measure it in the academic study of Harrison et al. (2013; published in 2015).

To understand stakeholders' issues, it is no longer enough to take into account only segments, markets, and products, to name a few. Understanding the organisational environment equals to addressing the behavioural characteristics that influence the given variables to translate those interests and concerns into effective strategies within a marketplace.

The classification of stakeholders can be modelled by applying a salience framework to the utility; their position and contribution aimed to objectives. According to Mitchell, et al. (1997) and Buchholtz et al. (2012) this framework uses three attributes: (1) power, (2) legitimacy and (3) urgency. The classification of stakeholders can be represented by the following framework.

Figure. 2 Stakeholder classification (Mitchell, et al., 1997; Buchholtz et al., 2012).



Where the more attributes – power, legitimacy and urgency – a stakeholder is perceived to have, the higher their salience. Hereby the overlapping of the three attributes and seven classifications of stakeholder behaviour are represented by the following three groupings.

I. Outer layer; latent stakeholders' one attribute, low salience. Entrepreneurs do nothing about these stakeholders and may not even recognise them as stakeholders. The typology of these stakeholders is:

Dormant; present or potential stakeholders but not evident or active, because without legitimacy their power remains unused. Organisations usually have little interaction with dormant stakeholders but should remain cognizant of their ability to gain power or legitimacy.

Discretionary; having the ability to act or decide according to their own discretion or judgement. These stakeholders are legitimate, but without urgency or power they would not receive the attention of the organisation.

Demanding; requiring much time, or careful attention. These stakeholders exert their influence because of the urgency. They do not have sufficient power or legitimacy in an organisation to back their claims (Mitchell, et al., 1997; Buchholtz et al., 2012).

II. Inner layer; expectant stakeholders' two attributes, moderate salience. Active rather passive. Seen by entrepreneurs as 'expecting something'. Likely a higher level of engagement with these stakeholders. The typology of these stakeholders is:

Dominant; more important or noticeable. These stakeholders have both power as well as legitimacy. They exert certain influence on the organisation. Although, their influence is not urgent.

Dangerous; able to involve possible lose. They can create a lot of nuisance inside the organisation. As these stakeholders have both power as well as urgency. The worst thing is that they may not have legitimacy or involvement with a project.

Dependent; needing the support to continue operating. These types of stakeholders have urgent and legitimate needs. They do not have sufficient power within an organisation to

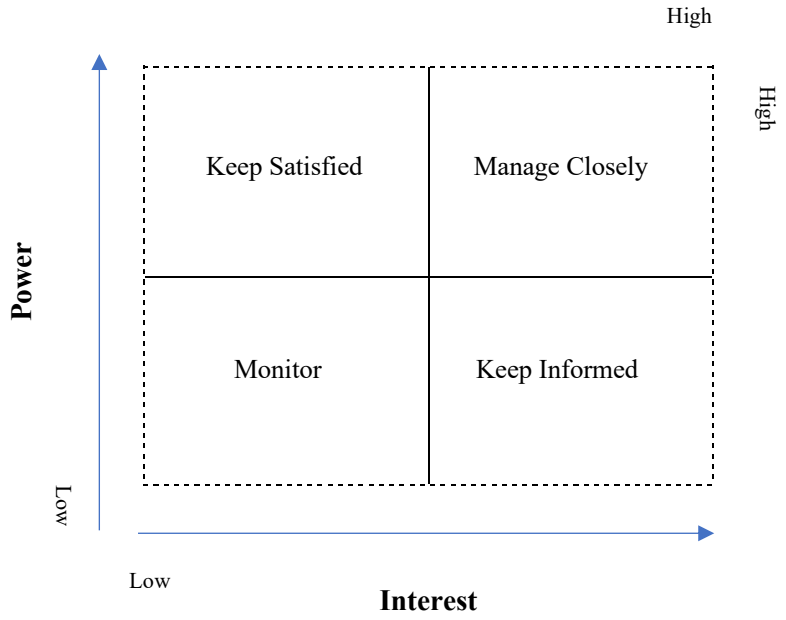
exert these needs. As a result, they depend on some other stakeholders to exert their influence (Mitchell, et al., 1997; Buchholtz et al., 2012).

III. Core; definitive stakeholders' all three attributes, high salience. Entrepreneurs give immediate priority to these stakeholders. The typology of these stakeholders is:

Definitive; serving to decide or to settle on a final solution. In other words, we can say these are the stakeholders with maximum influence. Their salience on the organisation is the highest (Mitchell, et al., 1997; Buchholtz et al., 2012).

Another, initial concept in classifying stakeholders is to define their level of power and interest. These two variables affect onto what extent stakeholders are invested into a project and provides a solid analysis of how to plan for stakeholders' interaction. The Power-interest matrix can be represented by the following framework.

Figure. 3 Power-interest matrix (Mitchell et al., 1997 ; Buchholtz et al., 2012).



Examples of how to engage in stakeholder relationships can be defined by whether the power and interest of the stakeholder is to keep satisfied, to manage closely, to monitor or to keep informed (Mitchell et al., 1997; Buchholtz et al., 2012). As follows this supports the organisation to list their stakeholders; by identifying people who are affected or have an interest (stake) in the decisions it

makes, their areas of influence; to the implementation of decisions, and the engagement approach; strategies for engaging the stakeholder.

In this respect, the stakeholders relevant to an entrepreneur can be mapped, and, according to Wood (2014) the relationship identified as either (a) transactional; those where the interaction is about providing or receiving a service – these are often contractual relationships, sometimes of a commercial nature, (b) database; is where a central database allows you to store details about your stakeholders – database relationships are associations between tables therein, (c) interaction; is the mutual or reciprocal action or influence between stakeholders, and, (d) network; the cultivation of productive relationships for employment or business.

2.3. Student entrepreneurship

Considering that a learning process can turn into 'student entrepreneurship' is important to distinguish the concept from 'entrepreneurship', yet it still shares several similarities with business entrepreneurship. The difference being that 'student (and most social) enterprises' stems from the creation of purpose and profit. According to Lubberink et al. (2018) the distinctive characteristics of this type of entrepreneurship[5] is exercised and represented where some individual or collective effort meets; (1) the aim to create exclusive or prominent social value, (2) opportunities with the right capacity to recognise and envision how to create value, (3) outright innovation and employ(s) invention in adapting someone's novelty to create social value, (4) the ability to take risks to create social value, and (5) the resourcefulness to sustain and pursue their social venture. Trivially, if monetary benefits and costs are exhausted in the previous mentioned characteristics it would lessen the student entrepreneurship status.

2.4. Interrelationship of theoretical concepts

To facilitate interpretation of the theoretical frameworks, it is necessary to provide the determinants that, both at micro and macro level, can affect the RQ: 'How the role of stakeholder engagement can support student entrepreneurship'. Thus, students' benefits and costs of entrepreneurial investments, shaping individuals' and collective decision-making in student entrepreneurship.

[5] Article towards a typology of Developing Innovations by Social Entrepreneurs from Lubberink et al. (2018; published in 2017)

In brief, within the extended stakeholder engagement frameworks, both the benefits and the costs can be distinguished into monetary and non-monetary variables of interest and influence on both student entrepreneurs and their stakeholders. The (expected) engagement of stakeholders, which depends on the salient attributes, i.e., (1) power, (2) legitimacy, (3) urgency (Mitchell et al., 1997; Buchholtz et al., 2012) and affiliation with a particular project may classify their overall involvement and behavioural characteristics towards organisational aims and objectives. Other non-monetary costs and benefits, associated to stakeholders' interaction, are the possibility to contribute stakeholder experience and knowledge about the perceived activities, influence organisational practices and the possibility into (not) forming sustainable relationships (Laszlo, 2008).

Monetary benefits reflect pecuniary preferences for stakeholder engagement, together with inclinations for financial investments (e.g., from shareholders – stakeholders) (Laszlo, 2008) and perhaps the type of incentive(s) stakeholders gain from these interactions. Finally, another initial concept in classifying stakeholders is invested in a solid stakeholder analysis of their 'power' and 'interest'. This helps entrepreneurs to identify key stakeholders, set metrics for engaging and approaching their stakeholders based on the importance and overall involvement into a project. Notice that the challenges and opportunities, strengths and weaknesses, organisations may face overtime can be somewhat represented by the 'Power-interest' matrix (Mitchell et al., 1997; Buchholtz et al., 2012). By applying this framework, we review the most relevant underlying determinants of how stakeholders are of contribution on the choice to invest in student entrepreneurship, while focusing on the interrelationship of social, economic and environmental benefits and how they converge on sustainability (Laszlo, 2008).

2.5. Applying theoretical concepts

Theory has shown me that the key concept in the operationalisation of support and contribution by stakeholders to the achievements of entrepreneurs can be typified as 'engagement'. In understanding 'how the role of stakeholder engagement supports student entrepreneurs', it is important to operationalise the benefits and indicators that will provide criterion (positive and negative examples) for organisations and entrepreneurs in their approach and planning for stakeholder engagement. The theoretical concepts can be applied as follows.

Table. 1 Operationalisation of stakeholder engagement (based on the models of Mitchell et al., 1997; Laszlo, 2008; Buchholtz et al., 2012; Wood, 2014).

Concept	Benefits	Stakeholder attributes	Stakeholder classification	Examples of stakeholder relationships
Stakeholder engagement[6]	Social	Power Legitimacy Urgency	Dormant Discretionary Demanding Dominant Dependent Dangerous Definitive	Transactional Database Interaction Network
	Economic	Power Legitimacy Urgency	Dormant Discretionary Demanding Dominant Dependent Dangerous Definitive	Transactional Database Interaction Network
	Environmental	Power Legitimacy Urgency	Dormant Discretionary Demanding Dominant Dependent Dangerous Definitive	Transactional Database Interaction Network

[6] This term is defined as per article about the explanation of how complex it is for firms to be responsive towards stakeholder concerns and issues (Buchholtz et al, 2013) mentioned earlier in stakeholder analysis frameworks.

In brief, for the first SQ to give a clear definition of stakeholder engagement, it is imperative to differentiate in multi fiduciary, strategic and synthesis stakeholder approaches. The responsibility stakeholders have in (non) monetary costs and benefits are inevitable. When student entrepreneurs and stakeholders consider a multi fiduciary engagement approach it leverages them to utilise economic or legal power (Buchholtz, et al, 2012). This differs from the strategic engagement approach that instruments stakeholders to pursue profits for shareholders/stakeholders who possess exclusive status (Buchholtz, et al, 2012). Further, moral engage intention in contributing to stakeholder responsibility, ethical behaviour and strategic objectives is the synthesis engagement approach. It helps organisations to increase moral consideration for shareholders/stakeholders and opportunities to better their ecosystem (Buchholtz, et al, 2012).

Dialogue to facilitate balance in basic fiduciary obligation to shareholders/stakeholders and future directions set out by the company favours both the strategic and synthesis approach to the overall achievements of stakeholders (Buchholtz, et al, 2012).

As follows the second SQ a clear framework in which stakeholders relevant to an entrepreneur or firm can be identified and mapped, the interest in current and future directions or objectives set out by a company helps to leverage awareness and accessibility (Laszlo, 2008). This will provide important information onto mapping and identifying stakeholders in relevance to an entrepreneur. The intention for more stakeholder collaboration supports student entrepreneurs and their stakeholders in identifying and aligning their mutual interests and needs. On top of accessibility to exploit the matters of product and service – related opportunities and strengths: the stakeholder engagement perspective on quality, functional and monetary value. This supports the student entrepreneur in enabling partnerships that reciprocate immediate or mutual interests over time (Wood, 2014).

Following suit on the third SQ to define student entrepreneurship which can be further defined by the formulation of monetary or non-monetary objectives and benefits that contribute to the student entrepreneurship status and their stakeholders. These objectives and benefits may help the Student Entrepreneurs to develop the next steps of marketing strategy choices to build stronger stakeholder relationships and internal marketing for support within the organisation. Contribution given in business entrepreneurship to successful marketing strategies and programs to better planning for stakeholder engagement can be exemplified as follows (Wood, 2014).

Entrepreneurship

Honda. Very positive reaction put momentum behind Insight's entry into other markets. With sales skyrocketing over 15.000 units instead of 5000 in the first month, Honda optimised every inch of the redesign, its Insight gasoline electric hybrid car. Marvellous advertising marketed the car differently in its home country of Japan. By using advance promotion-built anticipation techniques the car was made an instant hit in Japan. Emphasising the car's environmental benefits led Honda to maximise their customer relationship base in the United States. Supplementing conventional advertising with its first-ever product blog ''to set the record straight'' about the differences between the Insight and its closest competitor. Comments and questions posted on the blog helped Honda better understand U.S. consumers' attitudes and feelings, so it could adjust its marketing for this important market.[7]

Regarding the fourth SQ to accurately assess how stakeholders, contribute or deter to student entrepreneurship initiatives, attributes responsible for the steps in value for stakeholders (hereafter SSV) manifests in power, legitimacy, and urgency (Laszlo, 2008). The stakeholder groups' perspective on validity and interests in (non)monetary benefits confers in legitimacy. The ability to exert on their validity and interests is stakeholder perspective on power. The prioritisation given to (non)monetary benefits of immediate validity is stakeholder perspective on urgency (Buchholtz et al., 2012; Wood, 2014).

[7] Article about Insight placing 2nd in US Hybrid sales on Automotive News, 2009 by Philip Nussel (Wood, 2014).

Chapter 3: Research Methodology

The methodology used in this study combines field research of the secondary sources (i.e., from a studied case of student entrepreneurship in Turkey) and desk research.

3.1. Description and justification of research methods

The findings of this study will predominately depend on the secondary sources; desk research, whereas subsequent contextualisation required qualitative content analysis. The qualitative research approach is based on one interview with a (public and private related) professional experienced to provide substantive information about Stakeholder Engagement for Student Entrepreneurship; contact person A (see page 49) is a young professional, attempted student entrepreneur and current senior software engineer. This interviewee was chosen because of his hands-on experience with supervising trainees and student initiatives. To emphasise more on the quality, rather than the quantity of the research this interview entails a semi – structured (recorded) interview about student entrepreneurship.

As follows the second interview is with contact person B (see page 51) the founder of Hydro Turbine Energy Technology (HTET); a research and development group of student entrepreneurs that are applying an alternative business model to contribute their efforts to more sustainable and renewable energy generation. This interview was conducted in advance. The primary research method is used for the data collection process on the company of the student entrepreneurs. Data for the primary sources has been gathered through direct – observations during a work placement with Hydro Turbine Technology Energy and a semi – structured interview with Contact person B. The secondary research method is used for further analysis of the studied case. A summary of the interviews (and more information) can be found in the appendices.

Given the limited time and money resources the scope of this research is limited to one company and in: conducting more interviews, participatory observations over a longer period of time, access to financial documents and understanding of industry-specific legal frameworks. Here exploratory research is used as medium to identify issues, that can be the focus for further research. The sequential sampling technique[8] was used to conduct exploratory and qualitative research in a short duration of time (in referral to the SQs of Table. 2).

[8] Comparison of Snowball Sampling and Sequential Sampling Technique Etikan et al., 2015.

Further, the chosen research analysis method for this study is to define the stakeholders' level of power and interest as per figure 3. The Power-interest matrix (see Chapter 2.1. Stakeholder analysis frameworks – stakeholders) represents onto what extent stakeholders are invested into a project and provides a solid analysis of how to approach and plan for stakeholder engagement (Mitchell, et al., 1997; Buchholtz et al., 2012). The secondary sources entail either existing or recent desk research findings. The databases, websites and reports used are LexisNexis, Elsevier, Google Scholar, iLibrary, THUAS and Mendeley, amongst others, for reliable, actual and credible references.

The following table shows how the research (sub)questions support the mentioned theoretical frameworks and research techniques.

Table. 2 Research (sub)questions and chosen methods.

SQ1. What is stakeholder engagement? (to give a clear definition of stakeholder engagement)	Desk research, literature review and theoretical exploration (#20 literary sources) Interviews (#2 semi – structured) Studied case (#1 Stakeholder matrix) Qualitative review
SQ2. How stakeholders relevant to a firm can be identified and mapped? (a clear framework in which stakeholders relevant to an entrepreneur or firm can be identified and mapped)	Desk research, literature review and theoretical exploration (#20 literary sources) Interviews (#2 semi – structured) Studied case (#1 Stakeholder matrix) Qualitative review
SQ3. What is student (social) entrepreneurship? (to define student entrepreneurship)	Desk research, literature review and theoretical exploration (#20 literary sources) Interviews (#2 semi – structured) Studied case (#1 Stakeholder matrix) Qualitative review
SQ4. How stakeholders contribute to or deter to student entrepreneurship initiatives? (to accurately assess how stakeholders, contribute or deter to student entrepreneurship initiatives)	Desk research, literature review and theoretical exploration (#20 literary sources) Interviews (#2 semi – structured) Studied case (#1 Power-interest matrix) Qualitative review

Chapter 4: Results

The results of data collection through semi – structured interviews, direct – observation and informal interactions, show consistency between the research models or theoretical frameworks and the view of those who have been interviewed. Regarding the first SQ to give a clear definition of stakeholder engagement. Stakeholder reaction in and towards the explored theories were researched; establishment, maintenance, and enhancement of stakeholder relationships. People and organisations that are influenced by or can influence company performance are stakeholders. Information flows both ways – from the organisation to stakeholders and from stakeholders to the organisation (Wood, 2014). Contact person A mentioned that ‘‘the ability to interact with others is vital for student entrepreneurs in sustaining their persistence to anticipate change’’ (2020).

Contact person B mentioned that ‘‘Participating stakeholders improve growth and value. Growth is not always desirable or possible’’ (2021). In tough economic times, for instance, organisations retrench on their resources. ‘‘Sufficient time, management attention, and selected investments in engaging stakeholders’’ (Contact person A, 2020) – leads to successful turnarounds. The findings are consistent with the fact that engaged intention provides dialogue and clues up to 60 percent to strengthen relationships (Buchholtz et al., 2013). Balancing long, short-term goals and realities of current objectives and budgets requires input to adjust, integrate and manage content and impact. ‘‘Opting for a dialogue, provides information to stakeholders, their experiences and benefits’’ (Contact person A, 2020).

As follows the second SQ a clear framework in which stakeholders relevant to an entrepreneur or firm can be identified and mapped. Stakeholder participation in and towards the explored theories were researched; the (expected) stakeholder salient attributes, i.e, stakeholder power, legitimacy and urgency. Further, Stakeholder Engagement classification can be specified by the 7 typologies (Mitchell et al., 1997), dormant, discretionary, demanding, dominant, dependent, dangerous and definitive. The Power-interest matrix frameworks stakeholders and provides information to keep satisfied, to manage closely, to keep informed or to be monitored (Mitchell et al., 1997; Buchholtz et al., 2012).

In relation to this Contact person B, mentioned that ‘‘Assessing company performance provides customers, suppliers, channel members, partners and other stakeholders opportunity to achieve and

align objectives'' (2021). Plans to optimise stakeholder relationships minimise meaningless attitudes, behaviours and investments for student entrepreneurs. As mentioned in the theoretical framework, the operationalisation of Stakeholder Engagement supports the student entrepreneur in mapping and identifying the 4 stakeholder relationships to transactional, database, interaction or network (Wood, 2014).

Sampling the societal objectives of the relation between student entrepreneurs and their stakeholders include conservation, waste reduction, issue awareness and community involvement. Further, the financial results are met with objectives for profitability, to sustain current and future growth or retrenchment (Wood, 2014). This is consistent with Contact person B's statement that ''Cause related engage intention sustains social responsibility'' (2021).

Student entrepreneurship

As mentioned before Hydro Turbine Energy Technology engages stakeholders through industry specific congresses and fairs; advertisement agencies; sales representatives; energy engineers; consultancy operators and exhibitors. These stakeholders are factories or companies with a wastewater (treatment plant) discharge, near rivers or local communities. Direct – observation during the work placement and informal discussions with the employees and other stakeholders of HTET helped identifying the stakeholders that want to generate, sell, regulate or contribute to research and development in hydroelectricity. This helps the student entrepreneur to assess whether the interests of stakeholders aligns and addresses goals and objectives in relevance to the project. Resulting in the stakeholder matrix in Table. 3 (see page 24).

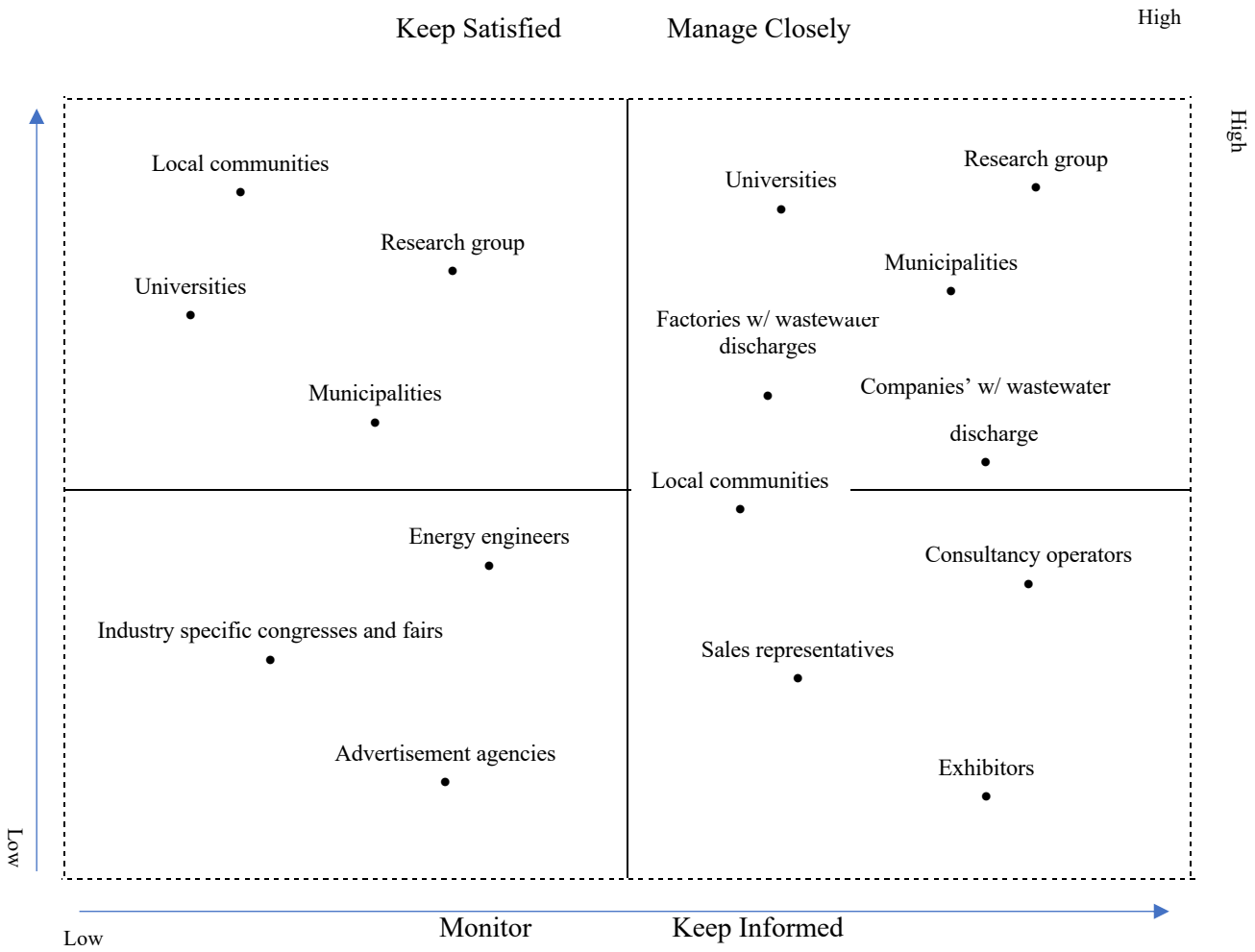
4.1. Studied case

Social enterprise studied: Hydro Turbine Energy Technology. started in 2013, the research and development project is a hydroelectric power generation system, serving as a hydropower turbine to generate relatively stable amounts of electricity that bolsters access to sustainable/green electricity. When introduced it was positioned as an affordable, environmentally friendly microturbine for more access to sustainable and renewable energy generation. Participating stakeholders boost the continuous improvement of the project, design and processes. Hydro turbine Energy Technology

engages stakeholders through industry specific congresses and fairs; advertisement agencies; sales representatives; energy engineers; consultancy operators and exhibitors. Their target community includes factories or companies with a wastewater (treatment plant) discharge, near rivers or local communities. With great interest in the impact on more access to sustainable and renewable energy generation. Sustaining their research and development makes it that stakeholder involvement is urgent, and relevant to be understood by the Hydro Turbine Energy Technology[9] (HTET) management.

Identifying stakeholders

Table. 3 Stakeholder matrix (based on the models of Mitchell et al., 1997; Buchholtz et al., 2012).



[9] Studied case on Research and Development from Hydro Turbine Energy Technology 2013-2021 (Contact person B, 2021).

Mitchell et al., (1997) and Buchholtz et al., (2012) helped identifying 4* Stakeholders to keep satisfied (KS), who need to be satisfied by the results of the project but who may not require regular attention during the project itself. These stakeholders are: municipalities and local communities (LC) such as LC's surrounding the campus area, nearby Teknokent, the first and largest Teknopark in Turkey. Encompassing LC's, municipality and university stakeholders who are all considered to keep satisfied for research, development and testing purposes of the project. Universities, as per facilitation of HR; Municipalities, for participatory LC's, allocation and community impact; Research groups, in improving research and development of alternative energy generation. The concerns of all stakeholders on a KS horizon need to be addressed to improve the interest on impact.

6* Stakeholders to manage closely (MC), who should be devoted with special attention to managing closely. These are the stakeholders with the largest capacity to promote the project within the business but also have the largest capacity to derail if not carefully handled (Mitchell et al., 1997). These stakeholders are universities, research groups, municipalities, factories w/ wastewater discharge (FW), companies' w/ wastewater discharges (CW). LC's and municipality stakeholders optimise involvement based on issue awareness, allocation and overall impact; FW's and CW's interests lies in to buy and sell, leveraging financial impact on HTET; Universities, in optimising access to research and development; Research groups, to enhance the overall business development. All stakeholders on a MC horizon need to be involved extensively.

4* Stakeholders to keep informed (KI), who will support the project and its aims and should be given regular updates to keep them included and motivated (Mitchell et al., 1997). These stakeholders are: local communities, consultancy operators, sales representatives and exhibitors. LC's have impact both on internal and external affairs of HTET; Consultancy operators and Sales representatives, act on the matters of product and service – related opportunities and strengths, weaknesses and threats translating these to potential sellers or buyers; Exhibitors, have the ability to demonstrate the project in an industry-specific environment. All stakeholders on a KI horizon need to be involved as needed.

3* Stakeholders to be monitored (BM), who should be monitored by the project manager in case their interest or power changes, but which require almost no attention at that point in time (Mitchell et al., 1997). These stakeholders are: advertisement agencies, industry specific congresses and fairs and energy engineers. Advertisement agencies and industry specific congresses and fairs, act on the matters of product and service – related opportunities and strengths as per advertising and promotion

for HTET; Energy engineers, act on technical matters of producing and engineering. All stakeholders on a BM horizon need to be monitored.

These findings along with the results for interviews and direct – observation translate in the following stakeholder engagement benefits product and service – related as per opportunities and strengths (O/S), weaknesses and threats (W/T) (Laszlo, 2008).

Table. 4 Stakeholder engagement benefits product and service – related O/S (based on the models of Laszlo, 2008;).

Stakeholder engagement benefits O/S		
Social	Economic	Environmental
Ability to manufacture parts domestically	Minimum amounts of civil works necessary	Ease of on-site application of microturbines
No high operational security during commission period	Efficient and minimum use of mechanical parts	Produces efficient and highest use of capacity
Ability to sustain the local communities near rivers	No need for implementation of additional construction sites	Product and construction are eco-friendly

Engage intention contributes to the matters of product and service – related opportunities and strengths (O/S), stakeholder analyses and prioritisation. Prior to analyses of the salient stakeholder attributes and/or benefits, the matters of W/T's and prioritisation given to stakeholder relationships can be translated in the next determinants as it follows Table. 5.

Table. 5 Stakeholder engagement benefits product and service – related W/T (based on the models of Laszlo, 2008).

Stakeholder engagement benefits W/T		
Social	Economic	Environmental
Minimum civil works may deter local and global HR	No strategy for manufacturing mechanical parts globally	Longer installation period due to insufficient regulations
Offerings for target market not diversified enough	Inability of continuation in financing mechanical parts	Insufficient regulations to invest in renewable energy mix

Operationalising the O/S's and W/T's in support and contribution of Hydro Turbine Energy Technology helps Student Entrepreneurs to yield indicators (positive and negative examples) in planning for Stakeholder Engagement. These findings further influence the social benefits, the economic benefits and environmental benefits of the theoretical framework and can be applied as it follows Table. 6.

Table. 6 Operationalising stakeholder engagement of Hydro Turbine Energy Technology (based on the models of Mitchell et al., 1997; Laszlo, 2008; Buchholtz et al., 2012; Wood, 2014).

Concept	Benefits	Stakeholder attributes	Stakeholder classification	Examples of stakeholder relationships
Stakeholder engagement[10]	Social Conservation* Issue awareness* Community involvement*	Power Legitimacy Urgency	Dormant Discretionary Demanding Dominant Dependent Dangerous Definitive	Transactional Database Interaction Network
	Economic Profitability* Sustaining growth* Retrenchment*	Power Legitimacy Urgency	Dormant Discretionary Demanding Dominant Dependent Dangerous Definitive	Transactional Database Interaction Network
	Environmental Employing invention* Waste reduction * Dialogue *	Power Legitimacy Urgency	Dormant Discretionary Demanding Dominant Dependent Dangerous Definitive	Transactional Database Interaction Network

Planning stakeholder engagement approaches	Marketing strategy choices

[10] This term is defined as per article about the explanation of how complex it is for firms to be responsive towards stakeholder concerns and issues (Buchholtz et al, 2013) mentioned earlier in stakeholder analysis frameworks.

4.2. Results of literature and qualitative study

Results are less robust when researching a demographic factor, namely students, the third SQ to define student entrepreneurship. Student entrepreneurship in and towards the explored theories were researched; distinguishing student from business entrepreneurship implies a singular, relentless focus in creating purpose and profit (Stevenson, 2000). Anticipating on the opportunities, the innovation and the resourcefulness in a social venture are criterion for student entrepreneurs. Benefits of a joint learning process are employing invention – ‘‘communicating initiatives, providing access to social value and networks’’ (Contact person A, 2020). Further, engaged intention helps the student entrepreneur to improve their stakeholder analyses and prioritisation. This results in a sequential process exploiting stakeholder relationships and benefits over time. Furthermore, ‘‘Contributing to social and environmental benefits increases the student entrepreneurship status’’ (Contact person B, 2021) – seeing student entrepreneurship as a systemic response and initiator of change (Stevenson, 2000) in terms of education and capabilities pioneers innovation.

Regarding the fourth SQ to accurately assess how stakeholders, contribute or deter to student entrepreneurship initiatives, stakeholder approaches in and towards the explored theories were researched in the context of case studies such as HTET ideally would be to add another student entrepreneurship case. Further, plans in managing stakeholder relationships support student entrepreneurs. Effective objectives are specific, time-defined, and measurable. Realistic but challenging. Consistent to the mission, goals, internal environment and appropriate in light of opportunities and threats (Wood, 2014). Contact person B mentioned that – ‘‘insufficient stakeholders’ cooperation and communication on initiatives for purpose and profit deters achieving success’’ (2021). Furthermore, in relation to how stakeholders, contribute or deter to student entrepreneurship initiatives, Contact person A mentioned that ‘‘Metrics for growth and inclusivity contribute stakeholders in sharing social responsibility’’ (2020). Benefits of objectives are met to change stakeholder attitudes and behaviours. Engaged intention improves to better identify opportunities and threats and leverage or minimise them – so that stakeholders can progress leads and raise profit to increase market share (Wood, 2014).

Here the theory and results show that in applying conceptualisation to the studied case of Hydro Turbine Energy Technology (HTET) their Stakeholder Engagement benefits result in social, economic and environmental leads (Contact person B, 2021). Social leads on conservation*; preventing wasteful use of resources, issue awareness*; concerning about and well-informed

interests in a particular situation or development (Wood, 2014) and community involvement*; power in bringing positive, measurable change in operating communities and businesses (Lazlo, 2008). Economic leads on profitability*; yielding profit or financial gain, sustaining growth*; growth that organisations maintain without running into problems and retrenchment*; cutting or scaling-back activities (Wood, 2014). Environmental leads on employing invention*; inventing a process or device, waste reduction*; lessening the amounts of careless use and dialogue*; communication permitting people in sharing meaning – valuable information (Lubberink et al., 2018)

The findings from the results could be summarised by a quote from Buchholtz et al. (2012) and Wood (2014) that ‘‘Engage intention provides dialogue for a clear mission, vision and direction bridging any form of disregard from involved stakeholders’’.

Table. 7 Stakeholder groups and benefits matrix (based on the models of Mitchell et al., 1997; Laszlo, 2008; Wood, 2014).

Stakeholder groups and benefits matrix

	Interest in the impact on:								
Stakeholder group	**Conservation**	**Issue awareness**	**Community involvement**	**Profitability**	**Sustaining growth**	**Retrenchment**	**Employing invention**	**Waste reduction**	**Dialogue**
Local communities	+/-	+ +	+	+/-	+ +	+/-	+	+	+
Research group	+ +	+ +	+ +	+ +	+ +	+/-	+ +	+ +	+ +
Universities	+ +	+ +	+ +	+/-	+	- -	+ +	+ +	+ +
Municipalities	+	+ +	+ +	+/-	+	+/-	+	+ +	+ +
Companies w/ water discharge	+/-	+	+	+ +	+ +	+	+ +	+ +	-
Factories w/ water discharge	+/-	+	+	+ +	+ +	+	+ +	+ +	-
Consultancy operators	+	+ +	+	+ +	+ +	+/-	+	+	+
Sales representatives	-	+ +	+	+ +	+ +	- -	+	+	+
Exhibitors	+	+ +	+ +	+/-	+/-	- -	+	+	+ +
Energy engineers	+ +	+	+	+	+ +	+/-	+ +	+	+/-
Industry specific congresses and fairs	-	+ +	+	-	+	- -	+ +	+	+
Advertisement agencies	-	+	+	+ +	+ +	- -	-	+/-	+

+ moderate priority; ++ high priority; +/- neutral; - somewhat priority; - - low priority

Dormant, Discretionary, Demanding, Dominant, Dependent, Dangerous and Definitive.

Transactional; Database; Interaction; Network.

Chapter 5: Analysis

It appears that by analysing the results of data collection through semi – structured interviews, direct – observation and informal interactions, that there is consistency between the research models and/or theoretical frameworks and the view of those who have been interviewed. With subsequent contextualisation of the first SQ to give a clear definition of stakeholder engagement (S/E), stakeholder dialogue – Interaction had the highest impact on the flow of information. This is consistent with the fact that organisations and people confer information (in)directly to one another – that are influenced by or can influence company performance (Wood, 2014). Contact person A mentioned that ‘‘Database S/E is of interest in the impact on the information process from the very beginning’’ (2020). Hereby organisations and their stakeholders can improve both internal and external communication. This helps Student Entrepreneurs to define the preferred Stakeholder Engagement relationships over time (Buchholtz et al, 2012). Authors Harrison et al. (2013) argued that researching the social and environmental concerns raised by external (rather than internal) stakeholders encourages or requires entrepreneurs to improve their performance.

Thus, to facilitate interpretation of the stakeholder analysis frameworks – stakeholders, the second SQ a clear framework in which stakeholders relevant to an entrepreneur or firm can be identified and mapped at micro level, Authors Mitchell et al. (1997) and Buchholtz et al. (2012) argues that the stakeholder matrices and tables therein (Wood, 2014), makes it easier for people and organisations to start mapping and identifying their stakeholders. This is consistent with the fact that it sustains companies in reviewing whether their objectives addresses and aligns with relevant stakeholders (Wood, 2014). Another source that was consulted, namely the stakeholder groups and benefits matrix (see page 29) based in majority on the research models or frameworks from author Mitchell et al. (1997) added clarification to the extent engaged intention reciprocates new information and benefits that might shed some light on mapping stakeholders.

In respect of stakeholder groups, customers, suppliers, channel members, partners and other stakeholders, Contact person B mentioned that ‘‘social, economic and environmental benefits leverages engaged intention (2021) and again, as authors Mitchell et al. (1997) and Wood (2014) expressed – helps identifying the preferred stakeholder relationships (see page 28). This is also consistent among others, with authors Buchholtz’s et al. interpretations (2012) that understanding the organisational environment influences monetary and non-monetary variables in relation to stakeholders’ validity to reinforce their interests, encompassing, power, urgency and legitimacy.

Companies can utilise this information parallel to strengthen their stakeholder relationships at macro level (Mitchell et al., 1997; Buchholtz et al., 2012).

Student entrepreneurship

As mentioned before Hydro Turbine Energy Technology (HTET) opts for a plural perspective in engaging their stakeholders. This to improve their efficiency and research to renewable global electricity systems, the stakeholders to keep satisfied are the local communities, universities, research groups and municipalities. Followed by the stakeholders to manage closely which are research groups, universities, municipalities, factories w/ wastewater discharges and companies' w/ wastewater discharges. Continued with the stakeholders to keep informed and involved as needed, thus, the exhibitors, sales representatives and consultant operators and, finally, the stakeholders to monitor, the industry specific congresses and fairs, energy engineers and advertisement agencies. Direct – observation during the work placement and informal discussions with the employees and other stakeholders of HTET helped identifying the stakeholders that want to generate, sell, regulate or contribute to research and development in hydroelectricity. Here stakeholder analysis further interprets the Power – interest matrix presented in Table. 8 (see page 34) as it follows.

5.1. Stakeholder analysis of studied case

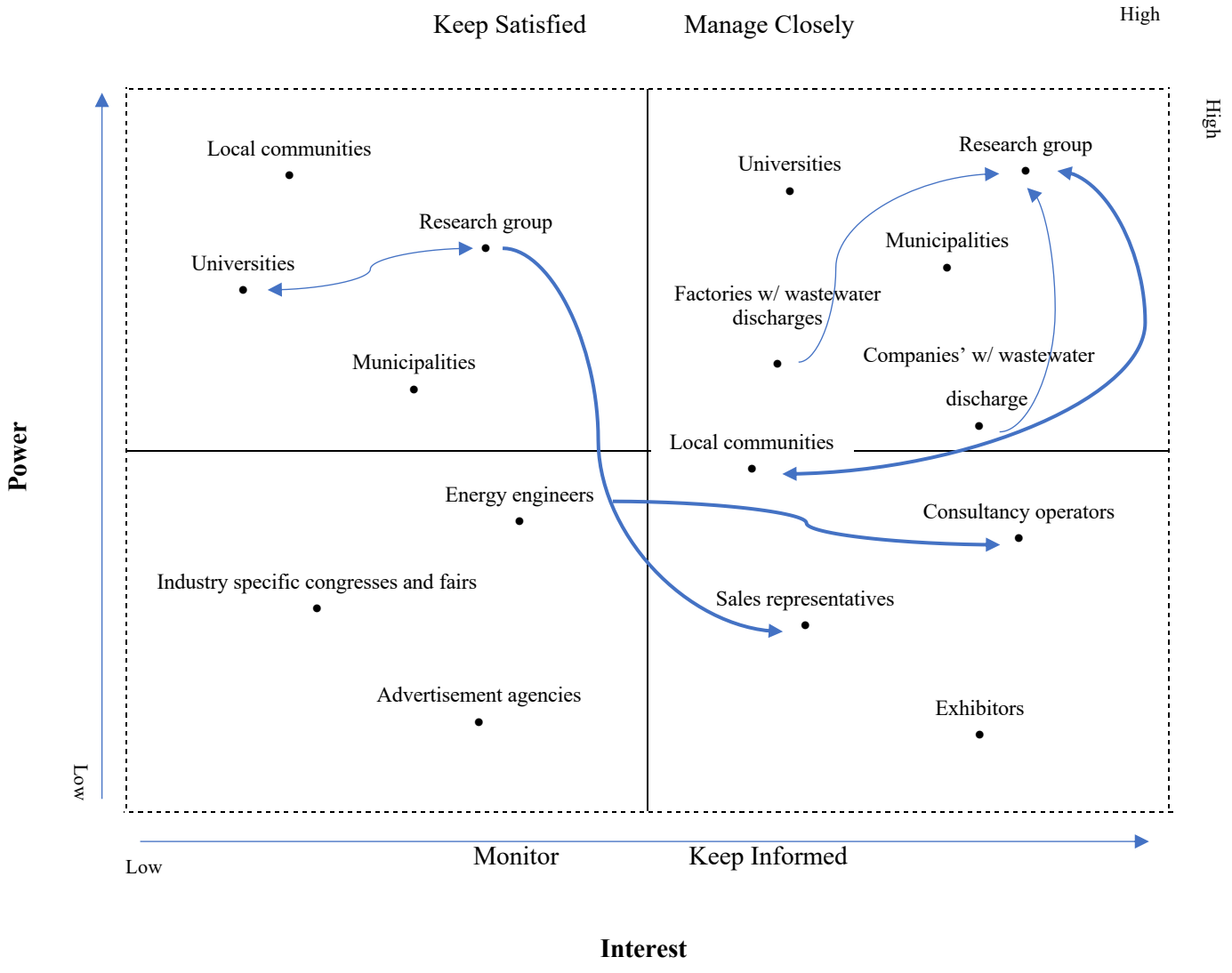
Social enterprise studied: Hydro Turbine Energy Technology

Hydro Turbine Energy Technology. Just a few years ago, demand for the Research group was so strong that it was awarded a place at METU Teknokent. Locally, Hidroturbin fought its way to the top of the sustainable and renewable energy industry. Stakeholders spotted environmental benefits in the works. In response, Hidroturbin introduced microturbines producing efficient and the highest use of capacity. Internally, the company increased its design and process efficiency to improve current and future profit margins. It has been testing its research and development to scale back on the use of mechanical parts. By bettering the development of a wider range of products and services for eco-friendly construction and on-site application.[11]

[11] Studied case on Research and Development from Hydro Turbine Energy Technology 2013-2021 (Contact person B, 2021).

Stakeholder analysis

Table. 8 Power – interest matrix (based on the models of Mitchell et al., 1997; Buchholtz et al., 2012).



A quick analysis, by means of proper determinants, shows and categorises the stakeholders in the Power – interest matrix. Adding influence lines to the Power-interest matrix gives more depth to the analysis by revealing the importance of stakeholders within each box in the matrix. Further, the wider lines are highly susceptible to change, Mitchell et al., (1997) and Buchholtz et al., (2012) helped identifying that interest from the stakeholders on a KS horizon in the impact on benefits can be strongly represented via two-sided arrow lines between Universities to Research groups. Most likely,

as author Wood argues to reinforce the flow of information (2014) in employing invention and growth metrics for their research and development. This is consistent with the fact that the 4* stakeholders on a KS horizon need to be kept satisfied by the results of the project such as, correlation between the social, the economic and the environmental benefits of the project. Here analyses evaluates that when Universities anticipate on stakeholder involvement, they in fact contribute to the Research group's (non)monetary goals and objectives (Contact person B, 2021). In return, Municipalities may leverage from; engaged LC's allocating time, environmental concerns and issue for participatory developmental impact. Eventually, causing as Contact person A mentioned Research groups to be satisfied by the ''optimisation of input and output as per research and development, and shared responsibilities (2020) to improve interest on impact, on a KS horizon.

Followed by two times, a one-sided direct line from factories w/ wastewater discharges (FW's) and companies' w/ wastewater discharges (CW's) on a MC horizon. Channel members or partners that help to reinforce access to sustainable and renewable energy generation. Here author Mitchell et al. (1997) helped identifying that these 6* stakeholders need to be involved extensively, in terms of promotion and business development. FW's and CW's on a MC horizon have the financial capacity to generate leads for social, economic and environmental benefits. This is consistent with author Wood's statement that engaged intention increases ''financial objectives for profitability, to sustain current and future growth or retrenchment'' (2014). FW's and CW's interests in the impact on access to their research and development to utilise new business models, is to buy and sell hydroelectricity for test and alternative generation purposes (Contact person B, 2021). Continuing with a two-sided arrow line where LC's and Research groups may profit from the output to better their research, development and community involvement. This reinforces Contact person B's statement that ''Cause related engage intention sustains social responsibility'' (2021) and leverages stakeholders, explicitly, Municipalities and Universities on a MC horizon can create social value.

As already mentioned before a large body of literature referring to the Power-interest matrix correlates to the probability to increase and integrate the engage intention to address concerns raised by various stakeholders (Mitchell et al., 1997). In this regard, interest on the impact by stakeholders on a KI horizon is presented by a one-sided arrow line from the Research group further split in two arrow lines, adding influence on sales representatives and consultancy operators. As authors Harrison et al. (2013) argued this helps to shed light on opportunities or concerns raised by the 4* stakeholders that may encourage and increase company performance. This encompasses Contact person B's statement that ''Sufficient stakeholders' cooperation and communication on initiatives

for purpose and profit maximises successful turnarounds'' (2021). Ensuring that all stakeholders from LC's to Exhibitors are kept informed on a KI horizon.

Regarding the stakeholders on a BM horizon, here analysis shows that the 3* stakeholders to be monitored are: advertisement agencies, industry specific congresses and fairs and energy engineers. The interests of these stakeholders as per product and services lies in technical matters for the energy engineers; raising concerns and opportunities based on engineering styles in hydroelectricity. Anticipating on experiences in education, thus, capabilities of either professionals or students' for research and development purposes (Contact person B, 2021). Where advertisement agencies and industry specific congresses and fairs leverage as author Stevenson (2000) argues the response of LC's, Universities and other stakeholders to the initiators of change on a BM horizon.

In brief, the Power – interest matrix reveals influence lines of communication between stakeholders and eventually helps Hydro Turbine Energy Technology (HTET) predict the correlation in the interest on impact in social, economic and environmental concerns, of (non) monetary benefits over time in Table 8. (see page 34). Arrow lines between stakeholders indicates the two-sided flow of influence – defined by author Wood (2014) as the ''flow of information between people and organisations''. A one-sided arrow line indicates the strongest influence and would be reciprocally illustrated with a direct line.

Stakeholder engagement benefits W/T

On one hand, analyses shows that stakeholder engagement benefit – related weaknesses and threats may deter Hydro Turbine Energy Technology (HTET) in social leads for conservation*, issue awareness* and community involvement*; when minimum civil works are necessary to support local and global HR and their offerings for the industry specific target market is not diversified enough (Contact person B, 2021). Interrupts economic leads for profitability*, sustaining growth* and retrenchment*; when there is no strategy for manufacturing mechanical parts globally and there is an inability of continuation in financing mechanical parts (Contact person B, 2021). Deters environmental leads for employing invention*, waste reduction * and dialogue *; when there is a longer installation period due to, and insufficient regulations to invest in the renewable energy mix (Contact person B, 2021).

Stakeholder engagement benefits O/S

On the other hand, stakeholder engagement benefit – related opportunities and strengths support Hydro Turbine Energy Technology (HTET) in social leads for conservation*, issue awareness* and community involvement*; with the ability to manufacture parts domestically, to sustain local communities (near rivers) and when there is no high operational security during commission period (Contact person B, 2021). Contributes to economic leads for profitability*, sustaining growth* and retrenchment*; when minimum amounts of civil works are necessary, for efficient use of mechanical parts and no need for implementation of additional construction sites (Contract person B, 2021). Further, it contributes to environmental leads for employing invention*, waste reduction * and dialogue *; when the product and the construction are eco – friendly, there is ease regarding onsite application of the microturbines to produce the most efficient and highest use of capacity (Contact person B, 2021).

5.2. Analysis of literature and qualitative study

Here it is needless to say that the integration of purpose and profit, the third SQ to define student entrepreneurship, leverages student entrepreneurs to use their experiences as validity to contribute to social and environmental benefits (Contact person B, 2021). It helps Student Entrepreneurs to contribute their education and capabilities in pioneering innovation, change and marketability of promising business models (Stevenson, 2000) to increase the matters of O/S (opportunities and strengths) while succeeding on their student entrepreneurship status (Contact person B, 2021). When opting the strategic and synthesis stakeholder approach authors Buchholtz et al. (2012) argues that it facilitates balance to the obligation entrepreneurs have to current or future shareholders/stakeholders to integrate and engage in the direction set out by the company. Student entrepreneurs most likely understand that shareholders/stakeholders need consideration but rather with moral responsibility (Buchholtz, 2012). In return this furthers the next step to formulate sustainable marketing strategies and programs ensuing from the basic marketing-mix (Wood, 2014).

Among the factors linked to behaviour of student entrepreneurs during the university period; their ability to interact with others is vital (Contact person A, 2020) and determines their persistence to anticipate change (Wood, 2014). Author Stevenson argues (2000) that seeing entrepreneurship as a systemic response and initiator of change in communities where resources are mobile – enough incentive is for successful turnarounds. Especially in communities that see change as positive rather than negative. In which the achievements of communities can be celebrated rather than derided (Stevenson, 2000).

With regard to plans to better identify opportunities and threats and to leverage or minimise them, not all actions are effective. Engage intention only impacts the interest on relevant stakeholder groups and benefits, the fourth SQ to accurately assess how stakeholders, contribute or deter to student entrepreneurship initiatives. As author Wood (2014) argued that realistic goals and objectives are imperative to minimise meaningless attitudes and behaviours to student entrepreneurship initiatives (Wood, 2014). As insufficient dialogue derails the flow of information – opting for more and better dialogue encourages environments to boost cooperation between organisations and people. It also decreases the matters of product and service – related W/T (weaknesses and threats) (Contact person B, 2021).

Table. 9 Stakeholder analyses of groups and benefits matrix (based on the models of Mitchell et al., 1997; Wood, 2014; Laszlo, 2008).

Stakeholder analyses of groups and benefits matrix

Clarification given to the acquired information and stakeholders interested in the impact on more access to sustainable and renewable energy generation[12] is again shown by means of proper determinants and analysis in Table. 9. Further analyses shows the interests in impact on social, economic and environmental benefits by their stakeholder groups as it follows two types of criteria for allocating the + or –. First, + moderate priority; ++ high priority; +/- neutral; - somewhat priority; - - low priority.

Second, as author Laszlo (2008) proposes stakeholder value can be perceived with, + moderate priority; equalling moderate steps in value for stakeholders (hereafter SSV), ++ high priority; equalling high steps in value for stakeholders, +/- neutral; equalling neutral steps in value for stakeholders, - somewhat priority; equalling somewhat priority steps in value for stakeholders, and - - low priority; equalling low priority steps in value for stakeholders. Here the matters of interest in the sustainable impact on monetary and non – monetary benefits determine the probability of salient characteristics, ultimately, correlating with the relevant stakeholder groups.

[12] Studied case on Research and Development from Hydro Turbine Energy Technology 2013-2021 (Contact person B, 2021).

	Interest in the impact on:								
Stakeholder group	**Conservation**	**Issue awareness**	**Community involvement**	**Profitability**	**Sustaining growth**	**Retrenchment**	**Employing invention**	**Waste reduction**	**Dialogue**
Local communities	+/-	+ +	+	+/-	+ +	+/-	+	+	+
Research group	+ +	+ +	+ +	+ +	+ +	+/-	+ +	+ +	+ +
Universities	+ +	+ +	+ +	+/-	+	- -	+ +	+ +	+ +
Municipalities	+	+ +	+ +	+/-	+	+/-	+	+ +	+ +
Companies w/ water discharge	+/-	+	+	+ +	+ +	+	+ +	+ +	-
Factories w/ water discharge	+/-	+	+	+ +	+ +	+	+ +	+ +	-
Consultancy operators	+	+ +	+	+ +	+ +	+/-	+	+	+
Sales representatives	-	+ +	+	+ +	+ +	- -	+	+	+
Exhibitors	+	+ +	+ +	+/-	+/-	- -	+	+	+ +
Energy engineers	+ +	+	+	+	+ +	+/-	+ +	+	+/-
Industry specific congresses and fairs	-	+ +	+	-	+	- -	+ +	+	+
Advertisement agencies	-	+	+	+ +	+ +	- -	-	+/-	+

+ moderate priority; ++ high priority; +/- neutral; - somewhat priority; - - low priority

Dormant, Discretionary, Demanding, Dominant, Dependent, Dangerous and Definitive

Transactional; Database; Interaction; Network.

Here theory and analyses show that the greatest salient characteristics on the interest on impact from stakeholder groups to benefits, can be analysed by means of proper determinants on the allocation of the ++ high priorities for Hydro Turbine Energy Technology (HTET) , and categorises the function of the highest (expected) salient stakeholder performance on a social, economic and environmental benefits horizon resulting in: 8* ++ high priority given to issue awareness; 8* ++ high priority given to sustaining growth; 6* ++ high priority given to employing invention; and 6* ++ high priority given to profitability.

The research models or frameworks from Mitchell et al., (1997), Wood (2014) and Laszlo (2008) helped identifying the interrelationship between relevant stakeholder groups and benefits converging on the steps for sustainability. Here engaged intention as author Harrison et al. argues (2013) leverages vertical stakeholders' engagement, ensuing the promotion of efficiency, resilience and top – down strategies between stakeholder groups and benefits. Where horizontal stakeholders engage on the sense of proximity and mutual understanding on a stakeholder groups to benefits horizon. As mentioned before, this is consistent with the urgence, and relevance of sampling the greatest salient characteristics to be understood by the Hydro Turbine Energy Technology (HTET) management (Contact person B, 2021). It helps Student Entrepreneurs to reinforce the preferred stakeholder relationships into; transactional, database, interaction and, or network (Wood, 2014) – by means of further research over time.

Independently of students' characteristics and behaviour, the reviewed secondary sources clearly argue in favour of the importance of pioneered innovation by student entrepreneurs. In fact, author Wood adds that it is well documented that the increase of quantity and quality of human and financial resources available (2014) – (at and beyond the university level*) contemporaneously guarantees entrepreneurs to improve their performance while furthering highly skilled human capital.

Limitations

Considering that their learning process turned into student entrepreneurship – is consistent with the theory and analyses that pioneering and devising new business models, employs invention and growth metrics for Hydro Turbine Energy Technology (HTET) (Contact person B, 2021). Concerning limitations of the studied case and stakeholder engagement in general, encompasses one

indicator, namely the ability to calculate those legitimate variables; monetary benefits and costs (Buchholtz et al., 2012) of the social benefits, the economic benefits and the environmental benefits. This needs more research to exploit the additional information acquired over time. Emphasising the underlying hypothesis of this study that a clear view of stakeholder engagement indeed supports student entrepreneurs to better identify opportunities and threats and leverage or minimise them (Mitchell et al., 1997; Buchholtz et al., 2012).

Chapter 6: Conclusion and Recommendations

This thesis uses a definition combined from two different definitions by studying stakeholder engagement and student entrepreneurship, defined as the simultaneous integration of a joint learning process for purpose and profit. Also, three different approaches were compared of which the synthesis and strategic approach had the highest fit with the studied case and was therefore chosen for this study, ensuing determinants balancing and identifying students', entrepreneurs and capabilities in – stakeholders' support, contribution to benefits, attributes and classification of stakeholder relationships (SQ1).

There are two main ways to measure engage intention. In applying stakeholder theory to student entrepreneurship it is common to use the research models or frameworks that help to identify the steps based on the models for stakeholder analysis and stakeholder matrices from Buchholtz et al. (2012) and Mitchell et al. (1997) so that is what was used here (SQ2).

Semi – structured interviews gave insight into which opportunities and strengths; weaknesses and threats had the biggest impact on engage intention. It turned out that not only engage intention matters, but that especially identifying and mapping stakeholders in relevance to the Student Entrepreneur, increases cause – related engage intention (SQ3).

Overall, the answer to the question ''How the role of stakeholder engagement can support student entrepreneurship'' is by implementing effective sustainable marketing strategies and programs, on promoting student entrepreneurs and planning to better identify opportunities and threats and leverage or minimise them. Enhancing stakeholder engagement relationships over time (SQ4/RQ).

References

[1] Ansoff, H. et al. *Optimising profitability in turbulent environments: A formula for strategic success.* Volume 26, Issue 5, 1993.

[2] Bhidé, A. *The Origins and Evolution of New Businesses.* Oxford University Press, 2000.

[3] Buchholtz, A. et al. *Strategic cognition and issue salience: toward an explanation of firm responsiveness to stakeholders concerns.* Academy of Management Review, 2013.

[4] Buchholtz, A. et al. *Business & Society: Ethics and Stakeholder Management*. Cengage Learning, Inc. Eight Edition, 2012.

[5] Eisenmann, T. *Entrepreneurship: A Working Definition.* Harvard Business Review, 2013.

[6] Etikan, I. et al. *Comparison of Snowball Sampling and Sequential Sampling Technique.* Biometrics Biostatistics of International Journal, 2015.

[7] Freeman, R. et al. *Strategic Management: A Stakeholder Approach.* Cambridge University Press. Latest edition, 2010.

[8] Freeman, R. *The politics of stakeholder theory: Some future directions.* Business Ethics Quarterly, 1994.

[9] Gartner, W. et al. *Measuring Entrepreneurship Over Time.* Journal of Business Venturing, 1995.

[10] Harrison, J. et al. *Stakeholder Theory, Value, and Firm Performance.* Business Ethics Quarterly, 2013.

[11] Hydro Turbine Energy Technology. *Hidroturbin: Generating electricity from wastewater,* 2021.

[12] Laszlo, C. *Sustainable Value. How the World's Leading Companies Are Doing Well by Doing Good.* Stanford University Press, 2008.

[13] Lubberink, R. et al. *Innovation for Society: Towards a Typology of Developing Innovations by Social Entrepreneurs.* Wageningen University & Research. Published by Informa UK Limited, Journal of Social Entrepreneurship, 2018.

[14] Mitchell, R. et al. *Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts.* The Academy of Management Review. Stakeholder salience, 1997.

[15] Savitz, A. *The Triple Bottom Line. How Today's Best-run Companies Are Achieving Economic, Social and Environmental success – And How You Can Too.* John Wiley & Sons Inc, 2008.

[16] Sherman, W et al. *The Triple Bottom Line: The Reporting Of ''Doing Well & Doing Good''.* The Journal of Applied Business Research, 2012.

[17] Sladdin, C. *Understanding the Student Entrepreneur.* Medium: Where good ideas find you, 2016.

[18] Sternberg, R. *Hydropower's future, the environment, and global electricity systems.* Renewable and Sustainable Energy Reviews, 2010.

[19] Stevenson, H. *Why Entrepreneurship has won!* Harvard University Graduate School of Business Administration, 2000.

[20] Wood, B. *The Marketing Plan Handbook.* Pearson Education. Fourth Edition, 2014.

Appendices

Appendices

THE HAGUE UNIVERSITY OF APPLIED SCIENCES

European Studies student ethics form

Your name: P.P. Turfkruier, Student.ID 10046135

Supervisor: Mr. D. Diojdescu

Instructions:
Before completing this form you should read the APA Ethics Code (http://www.apa.org/ethics/code/index.aspx). If you are planning research with human subjects, you should also look at the sample consent form available in the Final Project and Dissertation Guide.

a. Read section 2 that your supervisor will have to sign. Make sure that you cover all these issues in section 1.
b. Complete section 1 and, if you are using human subjects, section 2, of this form, and sign it.
c. Ask your project supervisor to read these sections (and the draft consent form if you have one) and ask him/her to sign the form.
d. Always append this signed form as an appendix to your dissertation. This is a knock-out criterium; if not included the Final Project/Dissertation is awarded an NVD. ***Section 1. Project Outline (to be completed by student)***

(i) Title of Project:

Stakeholder engagement for Student entrepreneurship

(ii) Aims of project:

The aim of this thesis is to evaluate how stakeholder engagement can support student entrepreneurs.

(iii) Will you involve other people in your project – e.g., via formal or informal interviews, group discussions, questionnaires, internet surveys etc. (Note: if you are using data that has already been collected by another researcher – e.g., recordings or transcripts of conversations given to you by your supervisor, you should answer 'NO' to this question.)

Yes.

If yes: you should complete the section 2 of this form.

If no: you should now sign the statement below and return the form to your supervisor. You have completed this form.

This project is not designed to include research with human subjects. I understand that I do not have ethical clearance to interview people (formally or informally) about the topic of my research, to carry out internet research (e.g., on chat rooms or discussion boards) or in any other way to use people as subjects in my research.

Student's signature _____

Section 2 Complete this section only if you answered YES to question (iii) above.

(i) What will the participants have to do? (v. brief outline of procedure):

The participants will have to share their professional expertise or experience about their field of work in relation to the topic.

(ii) What sort of people will the participants be and how will they be recruited?

Public, private professionals and student entrepreneurs.

(i) box **(iii) What sort of stimuli or materials will your participants be exposed to? Tick the appropriate es and then state what they are in the space below**

Words via an interview conversation.

(iv) Consent: Informed consent must be obtained for all participants before they take part in your project. By means of an informed consent form you should state what participants will be doing, drawing attention to anything they could conceivably object to subsequently. You should also state how they can withdraw from the study at any time and the measures you are taking to ensure the confidentiality of data. A standard informed consent form is available in the Dissertation Manual. Appendix the Informed Consent Form to your Final Project/Dissertation as well.

The informed consent form is enclosed in the appendices.

(vi) What procedures will you follow in order to guarantee the confidentiality of participants' data?

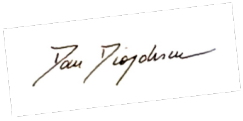
Notice of the interview conversation beforehand, written key notes of the interview conversation, summary and recording of the conversation available upon request and included in the appendices.

Student's signature:  Date: 3/1/2021

(if

Supervisor's signature: Date: 03.06.2021

satisfied with the proposed procedures)



Summary of interview conversation

Interview summary

Contact person A

Senior devOps software engineer, Supervisor of interns

Date: 23-12-2020

Location: Erasmusweg 408, The Hague

Interview questions

(1) How would you define your profession? And what makes it sustainable?
(2) Why is stakeholder engagement important in your field of work?
(3) How do you make sure planning to engage with stakeholders can be done sustainably?
(4) What characteristics are important for the student entrepreneur?
(5) How do stakeholders, contribute or deter to the goals and objectives of a student entrepreneur, thus, their decisions and projects?

Key words: stakeholders, student entrepreneurs and sustainable value.

A Senior devOps software engineer with hands-on experience in supervising interns and their ideas. Contact person A is an Intrapreneur, thus, let's say an employee who is tasked with developing innovative ideas within an organisation and can draw on its resources to do so. Being a young professional himself he continues to develop his work experience in the direction of digitalisation, in the services sector of information technology and telecommunications. His daily work consists out of continuous interaction with internal and external stakeholders. As a Software engineer and lead developer he needs to engage with co-workers to get a better understanding about a given problem, that entails both supervision and advisory work, and provide IT services to other ministries affiliated to his own division.

According to contact person A, sustainable development is a very current topic for today's organisations. This topic has been of debate for the past decade and underlines the importance of how organisations and their stakeholders can contribute to a problem and solution. His personal development is marked by decision-making and day-to-day choices. As unexpected as it may seem to others, even a Software engineer, that comes to a job market where employees with the required skillset and competences are very scarce has to engage with others to create its own path. Likewise, this is essential for the interns in the SCCT Department.

Contact person A has both professional and personal experiences (either tangible or intangible) with social (student) entrepreneurship. An example given of social entrepreneurship is about a housing project for both students and refugees in The Hague, The Netherlands. It was necessary to use image recognition to research the interpretation of the problem-solution oriented approach, and, to seek collaboration with businesses and academic institutions. According to Contact person A, this is an ideal version of working on a project, and, for it to be a success it has to be inclusive from the very beginning. On the contrary, student interns from the Dutch Antilles islands are not able to obtain a citizen service number upon their arrival in The Netherlands. This makes it difficult for them to invest and work on any initiatives they have had before their long-awaited arrival.

The 'why' of engaging in social entrepreneurship is necessary to sustain organisational goals and objectives. The allocation of subsidies needs to be of conscious competence. This is a shared responsibility of the initiator and funder. It does not benefit anyone to point fingers to what is less sustainable, rather, the efforts should be geared towards daring to take risks. Organisations or entrepreneurs need space for their goals to be achieved. It requires that individuals or groups are able to think outside of the box. Sometimes you cannot tackle social issues because of inequality, no matter how brilliant the initiative. Therefore, it remains important for entrepreneurs to sample how their initiatives can be more sustainable through setting metrics for the progress.

A definite criterion for student entrepreneurs is to keep communicating with their stakeholders. Companies survive due to their perseverance and savings. Student entrepreneurs alike should invest more in themselves, their initiatives, values and network. Dare to ask questions and mapping out ideas. This is crucial to get to know more about the environment you are working in.

Summary of studied case

Studied case summary

Contact person B

Hydro Turbine Energy Technology, Student entrepreneurship

Date: 2013 – 2021

Location: Online secondary sources and Desk research

Keywords: stakeholders, sustainable energy and electricity.

Hydro Turbine Energy Technology is a young innovative startup and was awarded a place at METU Teknokent, the first and the largest Teknopark in Turkey. Its Research and Development group produced Arvida, a sustainable and renewable hydroelectric power generation system, an Archimedean screw, serving as a hydropower turbine. The main feature of this turbine is that it does not require alteration of the riverbank, it can be deployed in smaller streams (and even in wastewater outlets of industrial operations), and it generates relatively stable amounts of electricity.

Access to electricity has been a problem for developing countries for many years, but access to sustainable/green electricity is still a major problem for all countries in the world. Meeting the ever-growing electricity demand and completing the energy transition at the same time is a challenging and immediate problem for both developed and developing economies. A variety of stakeholders have become keen players within the global energy sector. Further, trends in electricity teach us that hydropower has an established majority in the generation of renewable energy. Traditional hydropower plants, however, cannot be usually categorised as environment friendly electricity producers. Only coupled with relevant technology the generation of electricity meets both sustainable and fast-growing energy efficiency demands.

Studied case: Hydro Turbine Energy Technology

Hydro Turbine Energy Technology's mission is to improve sustainable energy access in the world. Its vision is to become a global pioneer in environment friendly, reliable, and efficient electricity generation, by introducing its small hydropower plant installations for generations to come. In order to reach these targets, the company needs a consistent local and global strategy.

The company's immediate stakeholders are (in)direct customers to obtain a beachhead segment in local and industrialised areas. These stakeholders may consist out of: Electricity generation or distribution companies, factories with a wastewater discharge, municipalities, agriculture water irrigation unions, hydropower engineering and design companies, water treatment facility designers, construction companies of power stations and technical directors, and energy policy decision makers (from municipalities).

Stakeholders that want to generate electricity to use according to their needs are mostly Municipalities, wastewater treatment plants, factories near rivers and factories with a wastewater discharge. On the contrary, stakeholders that want to generate electricity to sell are present hydroelectric companies that are looking for new investors and hydroelectric power plants willing to recover internal electricity demands.

Stakeholders or distribution channels that contribute to the research group and their student entrepreneurship are: Industry specific congresses and fairs, advertisement agencies, sales representatives, energy engineers, consultancy operators and exhibitors. This makes Hydro Turbine Energy Technology's current stakeholders the research and development group themselves, for continuous improvement of the project, design and processes. Energy consultant operators, independent and affiliated to a local or global energy company. Universities, for access to HR, partial funding of location and project testing. This constitutes government to business, business to government and business to customer stakeholder relationships.

Matters of product and service-related opportunities and strengths:

(a) The ease of application. Small hydropower plant installations work via an open channel system.

(b) There is no need to convey water, a fore bay, a separate powerhouse or penstock. It spares enormous amounts of civil works.

(c) The turbines RPM, thus, the number of turns in one minute is low. Stilling basins are not necessary.

(d) Separation from the riverbed is not necessary which makes the product eco-friendly.

(e) Implementation of additional construction sites is not necessary. This saves enormous amounts of public work and subjects the product to less on-site regulations.

(d) Ability for organisms to pass through the microturbines without damages or harm.

(f) Use of minimum to efficient mechanical parts that require minimum maintenance and provides a maximum economic and ecological lifecycle.

(g) No pressured pipes and high operational security during the commission period.

(h) The microturbines are efficient and stable. It produces efficient fluctuations and discharges annually an average of 8000 hours operationally. It can produce the highest use of capacity compared to other renewable and alternative energy generation technologies.

(i) The parts can be manufactured domestically, thus, the firms may benefit government incitements to invest in the necessary sustainable development goals and possible industry specific incentives.

Matters of product and service-related weaknesses and threats:

(a) The minimum amount of civil works necessary for the microturbines to function may deter local or global stakeholder engagement.

(b) Sole domestic manufacturing of mechanical parts may deter the global strategy.

(c) Insufficient energy policy regulations and differentiation in the local or global industry may deter the installations period of small hydropower plant installations.

(d) The inability to finance the mechanical parts for the local and global industry specific market.

(e) Insufficient energy policy regulations and willingness in governments and companies that contribute to renewable and sustainable energy generation.

(f) Uncertain local and global industry specific policy legislation that favours conventional energy usage and deters the investments in the renewable energy mix for both governments and companies.

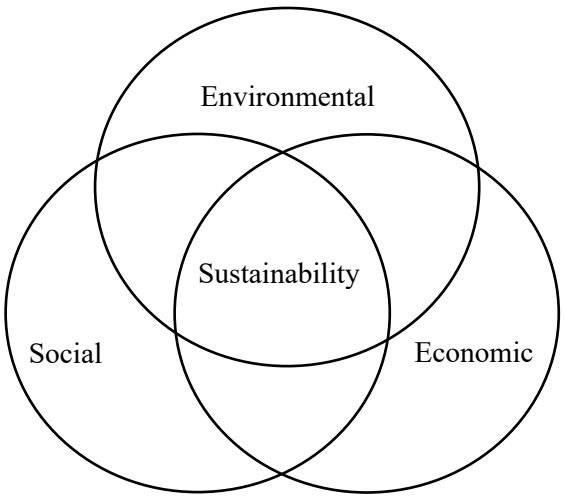
Annotated Bibliography (for further research)

Harrison, J. et al. *Stakeholder Theory, Value, and Firm Performance.* Business Ethics Quarterly, 2013.

Triple bottom line perspective: each step taken for stakeholder engagement is essential to continue measuring (non) monetary costs and benefits in the following years, if the utility, which depends on attaining sustainable stakeholder value, is greater than non-monetary costs.

In this article Harrison et al. review that quantifying the environmental and social benefits of a project can be complex, and that there is no 'one-size-fits-all' approach to apply in all cases. The authors use their research data to explain that 'stakeholder' is not synonymous with citizen or 'moral agent' as some wish to interpret it – rather, a specific and immediate relationship with an organisation is required to determine for stakeholder affiliation'. Their research focuses on assessing the social and environmental concerns raised by external (rather than internal) stakeholders to encourage or require entrepreneurs to improve their performance. The article is useful to my research topic, as Harrison et al. (2013) suggests that there are numerous reasons for applying a triple bottom line perspective to measure what stakeholders perceive as utility through their interactions with an organisation.

Triple Bottom Line 3P's (Harrison, J. et al., 2013).



Notice that the underlying hypothesis is that monetary objectives, costs, and benefits may influence the social and environmental aspects; to determine what matters to stakeholders and onto what extent the given utility is favourable. The main limitation of the article is that there is too little information to assess whether student entrepreneurs' chosen goals and objectives matches with their (external) expectations, and the effort needed for the required investments. Thus, the authors indicate that further, more extensive research needs to be undertaken to develop a more in-depth understanding of the triple bottom line perspective. This article will not form the basis of my research; however, it will be supplementary information for my research on stakeholder engagement for student entrepreneurship. Let us suppose that on the surface the triple bottom line perspective may occur in and influence the following characteristics.

I. Social; students' entrepreneurs, education, and capabilities.
II. Economic; students' allocation of time and financial investment.
III. Environment; students' behavioural characteristics, natural resources.

Sherman, W et al. *The Triple Bottom Line: The Reporting Of ''Doing Well & Doing Good''.* The Journal of Applied Business Research, 2012.

KPMG corporate responsibility reporting: once entrepreneurs start to opt for a triple bottom line perspective, before actual application, it adds substantive considerations for social and environmental equity factors to the overall decision-making.

In this article Sherman et al. review that instead of focusing solely on direct financial impacts of a project, it is vital for the research to understand the role and value of stakeholders in the overlapping broad categories – to estimate the impact of completed or potential courses of actions, or to compare (or evaluate) the value against the cost of a decision, project, or policy. The authors use data gained through organisational surveys of the KPMG *international survey on Corporate Responsibility reporting.* Their research focuses on assessing CSR. The article is useful to my research topic, as Sherman et al. found that 47 percent of the 250 surveyed companies felt that their sustainability initiatives created more than financial value[13]. The main limitation of the article is that most significant issues as the absence of any acknowledgement of a company's failures are not treated with enough detail (KPMG, 2008; 2011). Thus, the authors indicate that further, more extensive, research needs to be undertaken to develop a more in-depth understanding of measuring sustainability. This article will not form the basis of my research; however, it will be useful

[13] Data on the CSR rates refer to 2008; 2011 as it is one of the latest surveys conducted by KPMG about this topic.

supplementary information for my research on measuring sustainable value and corporate responsibility reporting.