UNIVERSITY OF TURKU
Turku School of Economics

The role of eco-innovation in market shaping strategies

Department of Marketing and International Business

Master's thesis

Authors:
Seyedehpegah Kazemian

Supervisors:
D.Sc. Majid Aleem
D.Sc. Birgitta Sandberg

11.5.2024

Turku

The originality of this thesis has been checked in accordance with the University of Turku quality assurance system using the Turnitin Originality Check service.

Bachelor's thesis / Master's thesis / Licentiate thesis / Doctoral thesis

Subject: International Business
Author: Seyedehpegah Kazemian
Title: The role of eco-innovation in shaping the market
Supervisors: D.Sc. Majid Aleem, D.Sc. Birgitta Sandberg
Number of pages: 102 pages + appendices 30 pages
Date: 11.5.2024

Abstract

Eco-innovation and market shaping phenomena both are new fragmented concepts, and more research is needed on these two topics to identify the key factors and drivers of them. Therefore, the aim of this research is to study and present how the existing literature has examined different elements of eco-innovation and market shaping, to develop a framework for connecting these two topics.

To achieve this purpose of the study, the author has conducted qualitative research by reviewing literatures through Web of Science (WoS) and Google Scholars. Several criteria were assessed as inclusion and exclusion steps to exclude the irrelevant studies. The data were analysed utilizing content analysis.

The analysed articles revealed that eco-innovation has an impact on market shaping strategies inside firms and provided insights into the eco-innovation multi-levels drivers that positively affect the adaption of market shaping strategies. Thus, according to the final study framework, macro-level drivers of eco-innovation including governmental regulations and policy instruments, meso-level eco-innovation drivers including market demands, financing availability and pressure groups, and micro-level eco-innovation drivers including firm's characteristics, business strategy, and technological competences can foster the adaption and employment of market shaping strategies. Therefore, understanding the drivers of eco-innovation in different levels and implementing eco-innovation in organizations' strategies can help to shape and move the markets towards sustainability.

This study offers valuable insights both in theory and practice for researchers and managers in organizations. Theoretically, the research examines the relationship between eco-innovation and market shaping strategies and practically, it provides valuable recommendations for business managers and give them insights into moving towards sustainable markets.

Key words: eco-innovation, market shaping.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 Introduction

1.1 Background and motivation for the study

Global problems such as environmental degradation and climate change due to economic growth have become more serious in recent years, and many countries have realized the importance of sustainable industrial development. (Hou & Guo 2023, 1) In recent years, there has been a steady increase in the number of journals and academic articles on sustainability. (Lopez Perez et al. 2024,1322) Many industries are trying to identify alternatives that will reduce the environmental impacts of their operations (Korhonen 2001, 253), and more countries are considering green transformation as part of their recent strategic goals. (Yuan et al. 2021,1) Additionally, companies have undergone a major environmental transformation and are investing more in environmental issues currently, (Hou & Guo 2023, 3; Vargas-Vargas et al. 2010,373) and more firms are realizing the significance of innovating in green products as a key factor to obtain increased growth rates and better quality of life. (Bossle et al. 2016, 861) Furthermore, firms have a significant role in a country's environmental performance and can lead consumptions towards sustainability by their new products and innovations introduced to the market. (Christensen et al. 2007, 39-40)

As environmental issues have become increasingly critical (Hou & Guo 2023, 3), and considering the highlighted significance of integrating environmental sustainability into processes in different industries (Vargas-Vargas et al. 2010,373), it is important to look at how businesses boost sustainability inside their firms. In this regard, green strategies are structured elements that improve sustainability of all the activities carried out within and outside a company's production section which aim at minimizing negative environmental impacts. (D'agostini et al. 2017, 1024) In order for companies to define green strategies and comply with regulations established by national and international government authorities aimed at protecting the environment, they need to improve their eco-innovation practices and design advanced production systems in accordance with sustainable development policies and the environment. (Gouyou et al. 2013,779). Therefore, eco-innovation practices become a prerequisite to solve problems, obtain a competitive advantage, and achieve carbon neutrality. (Cui & Wang 2021,481)

According to literature, implementing eco-innovation appears to be one of the most effectual practices that manufacturing companies can employ to mitigate negative environmental impacts of their production process. (Jimenez-Parra et al. 2018,1366)

Additionally, employing eco-innovation practices is a key factor towards accomplishing sustainable development goals and mitigating the negative impacts of economic growth. (Hou & Guo 2023, 15631) According to studies, eco-innovation is defined as a set of products, processes, systems, and technologies aimed at reducing negative environmental impacts. (Vence & Pereira 2018; Carrillo et al. 2009; Lopez Perez et al. 2024) Eco-innovation refers to the development of new products, processes or services which provides economic growth and environmental benefits. (Fussier & James,1996) Furthermore, studies suggest that eco-innovation is the action pursued by different groups of stakeholders that develops new behaviours, products and processes that contribute to specific environmental goals. (Jimenez-Parra et al. 2018; Klemmer & Lobbe,1999)

Moreover, markets are complex adaptive systems and incumbent firms can shape the market in their favour. (Mollinger-Sahba et al. 2021,429) Mainstream marketing traditionally has been based upon the assumption that markets already exist and that firms enter a pre-existing context where they discover opportunities. (Coviello & Joseph 2012,87) In this view, markets are external to the firm and are beyond its control. (Kaartemo & Nystrom 2021,458) However, marketing scholars have recently changed their view of the market from pre-existing and given contexts concept towards market integration as entities represented by several different market actors. (Geiger et al. 2012, 134)

In addition, many research streams acknowledge markets as systems governed by institutional rules and policies (Roderick et al. 2020,1385), and markets are conceptualized as institutionalized new solutions (Vargo et al. 2015, 64; Kaartemo & Nystrom 2021,458). Correspondingly, market shaping literature investigates how markets evolve over time (Ben-Slimane & Fessi 2023 ,525) and market shaping is defined as a set of purposeful activities employed by firms to increase their competitive advantage in the market. (Gavetti & Helfat 2017,194). According to Service-Dominant (S-D) theory, markets are results of an incorporation of technological innovations and institutional arrangements. (Vargo et al. 2015, 64) Technology contributes to shaping the market (Nenonen et al. 2019, 619), and technological development can accelerate market change. (Vargo et al. 2017, 260) Similarly, according to studies, market shapers are relied on complementary technologies that enable the path towards exploring new ways of linking resources and co-creating values. (Nenonen et al. 2019, 619; Kaartemo & Nystrom 2021,458) Therefore, market actors can shape the market by generating market innovations (Kaartemo & Nystrom 2021,458) Literature on this topic identifies that

several market shaping actors can collaborate and bring about innovations and changes in the market. However, there has not been enough studies regarding how more detailed specifics of innovations may act as a contingency factor in the market shaping process. (Ben-Slimane & Fessi 2023 ,525)

1.2 Research Gap

Literature on eco-innovation is still preliminary and research on this field of study is still in its infancy. (Klewitz & Hansen, 2013,60; Colombo et al. 2019,654) Therefore, there is a growing importance of eco-innovation for research to make better use of resources and mitigate the negative environmental impacts. (Diaz-Garcia et al. 2015,8) Additionally, according to studies, innovations can accelerate market shaping actions, as market shaping actions rely on complementary technologies as a tool to create value in the market. However, particular attention has not been paid to the role of technology and innovation concept in the field of market shaping (Ben-Slimane & Fessi 2023 ,525; Kaartemo &Nystrom 2021, 458).

Moreover, more research is demanded on the role of innovation and its specific types on market shaping process. (Ben-Slimane & Fessi 2023 ,525) As eco-innovation is grounded in a smaller scale than innovation, because it encompasses limited features related to environmental impacts (Bossle et al. 2016, 862), the role of eco-innovation in market shaping process needs to be studied. Therefore, this thesis intends to provide additional insight into the academic discussion on eco-innovation and market shaping concepts.

Firms pursue different strategic intentions for their market shaping strategies based on their market shaping goal and stability of the market. (Flaig et al. 2021, 256; Hawa et al. 2020) Depending on these strategic intentions, firms might guide their market shaping strategies offensively or defensively. Offensive market shaping intentions refer to strategic activities aiming at changing the status quo. (Hawa et al. 2020, p.48) Whereas, in contrast, market shaping intentions might guide to defensive market shaping strategies, aiming to maintain the current market configuration. (Flaig et al.2021, 257) According to studies, market actors with offensive market shaping intentions offer a more attractive vision of the current market configurations (Flaig et al. 2021,257; Gawer & Phillips 2013, 1036; Thornton & Ocasio 1999,804), and assert their own market configurations to own the market. (Beckert 2010, 620)

Correspondingly, offensive market shaping strategies include market widening and market innovation strategies. (Flaig et al. 2021, 257-258) Market shapers attempt to modify the current market configuration by market widening strategies when the current market configurations rather to be stable. (Burr 2014,22) Whereas, in case of market innovation, an offensive market shaper aims to dispose of the current market configuration due to the instabilities in the market, to the extent in which a more favourable market configuration is established. (Flaig et al.2021, 257)

The result of successful market shaping is recognized as market innovation. (Brodie et al.2020, 1385) Market innovation is defined as a series of purposive actions by different market stakeholders aimed at creating a distinctly new market or configuring the current market (Sprong et al. 2021,450) Market innovations are the result of market shaping processes if there are considerable configurations in the market structure or market practices (Kjellberg et al. 2015,4), and market innovation practices have been depicted as a significant driver of market shaping. (Storbacka & Nenonen 2015, 73) Market innovation is a growing trend among market leaders (Tang et al.2021; Sorescu & Spanjol 2008), and global innovation surveys indicate that more firms have employed market innovation practices since the financial crisis in 2008, and more than 600 marketing leaders globally, have identified marketing innovation as a priority. (Tang et al.2021, 88) Additionally, over the past three decades, issues regarding creation, configuration and translation of markets have been highlighted and there has been a significant academic scrutiny in literature. Many studies suggest that literature on market innovation is fragmented and is characterized by uncertainties, and market innovation is a new research field which includes several sets of concepts and goals that need to be studied. (Sprong et al. 2021,450; Kaartemo & Nystrom 2021,458)

In addition, market widening aims at expanding the current market to increase the proposed value for the market actors. (Flaig et al.2021, 257) Use-environment is defined as conditions of product use. Accordingly, efforts aimed at increasing the use-environment is referred as market widening. Studies of markets indicate fragmentary understandings of market widening as a concept. Hence, there is a significance in studying market widening strategy. (Burr 2014,19). Additionally, there is a deep connection between use-environments and market demand and innovation can accelerate product usability. (Agarwal & Bayus 2002,1025) In fact, innovation facilitates modification in use-environments and initiates market widening. (Burr 2014,19)

1.3 Research Questions

In the pursuit of understanding different intentions behind market shaping strategies, in this master thesis the author decided to focus only on the offensive market shaping strategies due to time constraints. Therefore, within the constraints of this study, the research sub-questions are deliberately delimited to market innovation and market widening strategies. Hence, the main research question of this thesis is: *"What is the role of eco-innovation in market shaping strategies?",* and to effectively answer the main research question of this study, it has been broken into two sub-questions: First, *"What is the role of eco-innovation in market innovation strategy?"* and second, *"What is the role of eco-innovation in market widening strategy?"*

Innovation processes are known to have technological and market dimensions (Abernathy & Clark 1985, 5), and studies on innovation concept has specified market innovation as a particular category of innovation. (Schumpeter's 1934; Kjellberg et al.2015) In addition, market innovation is also conceptualized as one of the outcomes of market shaping strategies and entails embedding an innovation in an existing market and the transformation of the existing market towards a desirable market, or creation of new markets from the scratch and detached from any established ones. (Martin & Schouten 2014, 856) However, despite some scholars have emphasized the importance of market innovation, its precise meaning remains unclear and studies on this concept is limited. (Kjellberg et al.2015, 4) Therefore, the first and second research sub-questions help the author to identify the link between eco-innovation and market shaping by addressing the role of eco-innovation in market innovation and market widening as two different specific types and categories of market shaping. (Flaig et al. 2021, 254-256).

Due to the current level of knowledge on the phenomenon and lack of literature on eco-innovation and market shaping as the subtopics, a qualitative method was decided to be suitable to synthesize the relevant existing literature. In addition, a systematic literature review has answered the study's main research question and sub-questions. Furthermore, systematic literature reviews are a methodology that aid identifying and assessing the current knowledge levels and serve as a foundation for advancing the existing knowledge. (Fisch & Block 2018,103) Additionally, systematic literature reviews accelerate the way to access the existing studies and literature and on a subject matter and look at it and summarized its findings in an organized manner. (Denyer & Tranfield 2009,671) Therefore, to fulfil the purpose of this master thesis, by studying what is already known and what needs more research through a wide range of relevant

studies, a systematic literature review was decided as an excellent approach for answering the main research question of this study and fulfill the research purpose. The methods used in the systematic literature review are described and justified in the following chapter.

2 Research Design

This section describes the research approach used to answer the research questions and explains the rationale behind the chosen research methodology. Also, this chapter describes the methodology part of the research, by presenting the research approach and describing the data collection and justifies the choice by citing why it is well-suited to solve the research problem by this approach. Finally, the researcher describes how the data is analysed and synthesized.

2.1 Research Approach

Review studies indentify areas where research is fragmented and accelerates theory development (Webster & Watson 2002, xiii). According to Kitchenham (2004), a systematic literature review is a tool for evaluating the research related to a specific topic area or phenomenon of interest. Based on Xiao & Watson (2019, 93-112), by conducting a literature review, the author conduct a thorough and comprehensive analysis of the extant literature, which allows for identifying gaps in the existing body of work, and by analysing a group of related literature we can generate assumptions and propositions and develop new theories. Overall, review studies can function as a starting point to provoke new theoretical models or highlighting unexplored areas (Pare et al 2015, 185). Furthermore, review studies can vary in forms, including qualitative, quantitative, and mixed methods. Qualitative aspect of review studies focusses on narrative review of the existing literature, while meta-analyses add quantitative element to the summarization of the literature (Hulland 2020, 27).

A successful literature review contains three important phases including planning the review, conducing the review, and reporting the review. In the planning stage, researchers specify research questions and develop the research protocol. The protocol includes a detailed review plan, including the criteria to apply for primary study selection, any boundaries and quality measures. This protocol is essential for rigorous systematic reviews because it helps to reduce the possibility of bias in data selection (Brereton et al. 2007).

In addition, developing appropriate research question(s) is of great importance when conducting a systematic literature review and might get to an iterative process (Xiao & Watson (2019, 93-112). Research questions are the core of systematic literature reviews (Kitchenham & Charters 2007) that should not be changed after the protocol is confirmed

(Breretona et al. 2007). In this regard, Breretona et al. (2007) suggest that one way of scoping the research question is through a systematic preview mapping. After an initial search of literature on the research question, this map is conducted to describe the factors such as the distribution of the studies, the range of subtopics, the number of studies within each subtopic, and the years the studies were carried out.

Qualitative research design is based on contextual understanding (Bryman & Bell 2011), and a qualitative research method was considered more suited for this master's thesis study, as the topic is complex and includes novel concepts which have not made advances to formulate measurable variables. Therefore, this study requires deep understanding of the phenomenon, which would be difficult to obtain by using quantitative research approach. Furthermore, according to Webster & Watson (2002, xiv) for researchers tackling an emerging topic to develop new theoretical foundations, review of the extant literature would be shorter. Hence, a systematic literature review and a qualitative approach was decided well-suited for this study.

According to Zalaghi & Khazaei (2016), qualitative research is a rigorous approach to answer the research questions, and in this research methodology, literature review is used to provide evidence for the study questions. Furthermore, according to Littell et al. (2008,1), systematic reviews are designed to provide transparent documentations to tackle a research question. Therefore, this study employs systematic literature review approach as a tool to create the foundations for the main research question of "What is the role of eco-innovation in market shaping strategies?"

Xiao & Watson (2019, 103) contend that literature review is an iterative process, and they argue all reviews can be processed following these eight steps: 1) formulating the research problem 2) developing and validating the review protocol 3) searching the literature 4) screening for inclusion 5) assessment of quality 6) extracting data 7) analysing and synthesizing data 8) reporting the findings. According to Xiao & Watson (2019, 104), in systematic literature reviews with extending purpose, the strength of the review is proportional to the papers chosen for inclusion, and only articles that fit the inclusion criteria and are based on the research question are included.

As part of this master thesis, these eight steps were conducted. More details are provided in the following sections to assure the principles of a coherent systematic literature review.

2.2 Data Collection

As mentioned in the above, review conduction is indicated as the second step of a successful process of a systematic literature review. In this step, it is essential to search for relevant literature and identifying where to collect and extract data (Breretona et al. 2007). Figure 1 in below, indicates an adapted framework from Xiao & Watson (2019,103), describing the steps of a systematic literature review, including the data collection.

Planning the review	**Step 1: Formulate the problem**
	Step 2: Develop and validate the review protocol
	Narrow down the body of work
Conducting the review	Step 3: Search the literature
	Step 4: Screen for inclusion
	Step 5: Assess Quality
	Step 6: Extract data
	Step 7: Analyse and synthesize data
Reporting the review	Step 8: Report findings

Figure 1 Systematic literature review stages (Xiao & Watson 2019, 103)

Figure 1 above presents different steps of a systematic literature review. First, a systematic literature review starts from defining a research question, and an appropriate research question must be identified. According to Xiao & Watson (2019, 103), research question(s) guide the systematic literature review process, as the research methodology for extracting and analysing data is based on it. Moreover, according to Kwiatkowski &

Silverman (1998, 1115), a good research question must be feasible to be answered in a given time frame and specific environment. In this study, with the first draft research question, “How does eco- organizational innovation contribute to shaping the market?”, as the eco-organizational innovation was a very specific and relatively new concept, it was impossible to answer the question by reviewing the extant literature. Therefore, the author modified the research question to “What is the role of eco-innovation in market shaping strategies?”, to make it more feasible to provide answer within the given time frame and prevailing literature.

Second, review protocol is utilized to develop and validate the research methodology utilized for conducting the review and data identification. According to Gates (2002, 548), review protocol for a systematic review predefines the criteria of literature inclusion, quality assessment, data extraction, and final synthesis and analysis. As a part of this study, multiple versions of research plan were conducted and were reviewed by the supervisors.

Third, a systematic review requires a systematic search of literature, and the quality of the review is conditional on the literature collected. (Xiao & Watson 2019, 104) According to Xiao & Watson (2019, 104), there are three major channels for searching literature including electronic databases, backward searching, and forward searching. Additionally, they posit that no electronic database for literature search is a complete source, therefore, a systematic search for literature must include different databases. Moreover, the researcher can conduct the backward and forward search simultaneously or separately. (Levy & Ellis 2006) Xiao & Watson (2019, 104) recommend that to conduct a systematic review based on a complete list of literature, researchers should utilize both backward and forward search. Backward search is conducted by tracking the references published in the articles. On the other hand, forward search is conducted through search of articles on Google Scholar and ISI citation index. (Xiao & Watson 2019, 104) In this regard, both Google scholar and Web of Science (WoS) offer advance search options to target the search results more effectively, and the author used keywords including “eco-innovation” and “market shaping” on Google scholar and Web of Science (WoS) to search for relevant articles. Similarly, the author scanned through the reference lists of articles found by the forward search to find earlier works that laid the groundwork for the current research.

In this study, systematic literature review was drawn from all three major resources, including searching the databases Google Scholar, Volter and Web of Science. To find

the relevant literature for review, same key terms were utilized to find relevant articles on Web of science (WoS) and Google Scholar. According to Vanhala et al. (2020,47), the ISI Web of Science is an ideal source for review studies. Additionally, according to Xiao & Watson (2019, 93-112), Google Scholar is a powerful open access database for a wide range of publications including journal articles and conference papers, thesis and reports. The initial search for literature was conducted in December 2022, a topic search was conducted through Volter to familiarize with the extant literature on the key terms. In addition, backward searches were done by reviewing the reference section of the articles, and forward searches were conducted by searching for the citations and identifying the list of newer papers.

Additionally, according to Kitchenham & Charters (2007, 14) identifying key terms is among the most important parts in generating research strategy, and it is crucial that these key terms are derived from the research question. In this regard, a general approach for identifying the key words is to break down the research question into individual facets and possibly extend them by synonyms, abbreviations, alternative spellings, and related terms. However, according to Wanden-Berghe & Sanz-Valero (2012, S4), exhaustiveness and using broader keywords might result in finding irrelevant articles and for the sake of a research it is to better to adjust a balance between precision and exhaustiveness. Xiao & Watson (2019,104) propose that reviews with the aim of extending are ideal to be selective and precise. Furthermore, Kitchenham & Charters (2007,14) suggest searching through the results of primary studies to check whether the keywords can perform sufficiently. For this thesis, with alignment to the research question and after a primary search on keywords of related literature, the initial key terms were identified as below:

("eco-innovation" OR "Green innovation" OR "environmental innovation" OR "sustainable innovation") AND market ("shaping" OR "widening" OR "forming" OR "innovation" OR "driving" OR "creation" OR "scripting" OR "co-creation").

Fourth, establishing inclusion and exclusion criteria is essential for a review study, and systematic review studies demand clear inclusion and exclusion criteria to examine each potential primary study, and these criteria for selection of documents are aimed at identifying those primary studies that suite answering the research question. (Kitchenham & Charters 2007,4) Any studies unrelated to the research question must be excluded. (Xiao & Watson 2019,104) Furthermore, the inclusion and exclusion criteria could be based on the type of publication, research design and methodology, database, and article language. (Okoli & Schabram 2010,23)

In this master thesis study, the researcher applied specific criteria for article inclusion from the early stages of the study to ensure that studies unrelated to the research question are excluded. As eco-innovation and market shaping are two new concepts, the extant literature on these topics mostly appeared to be from 2008 afterwards. In addition, the researcher performed a topic search and year published search with key terms on Web of Science and the publications appeared to be from 2000 to 2024. To begin with, the author searched through published documents on Web of Science using the broad keywords "eco-innovation" and "market shaping strategies" and ten pages of 980 articles were found. Next, the author skimmed through the documents to assess the quality of documents and further decide their relevance to the research topic. In this step, the author excluded studies and documents such as reports, chapters, conference papers etc., and only journal articles written in English were included and the articles were narrowed down to three pages of 122 articles on Web of Science. Then, after careful review of the articles' topics and abstracts, studies reviewing a specific field or topic were excluded and only studies in the field of business, management and economics were included. After that, a record including titles, authors' names, and keywords were exported from Web of Science, and was combined with data from Google scholar. Furthermore, as there was a possibility of duplication in articles, duplicated articles were checked and erased.

Finally, for reporting the articles' inclusion and exclusion criteria, the author used PRISMA guidelines. PRISMA statement is a reporting guideline designed to address a discipline for reporting of systematic literature reviews. This guideline guides systematic reviewers to vividly report their review process and methodology by answering questions including why the review was done, what the author(s) did, and what did they find. Moreover, PRISMA 2020 statement includes reporting guidance that helps to identify, select, evaluate, and synthesize studies, and helps the reviewers to increase the transparency and accuracy of their review. Therefore, PRISMA guidelines help to generate valuable types of knowledge for various users of the review (Page et al. 2021, 1). Figure 2 below outlines inclusion and exclusion criteria for this study.

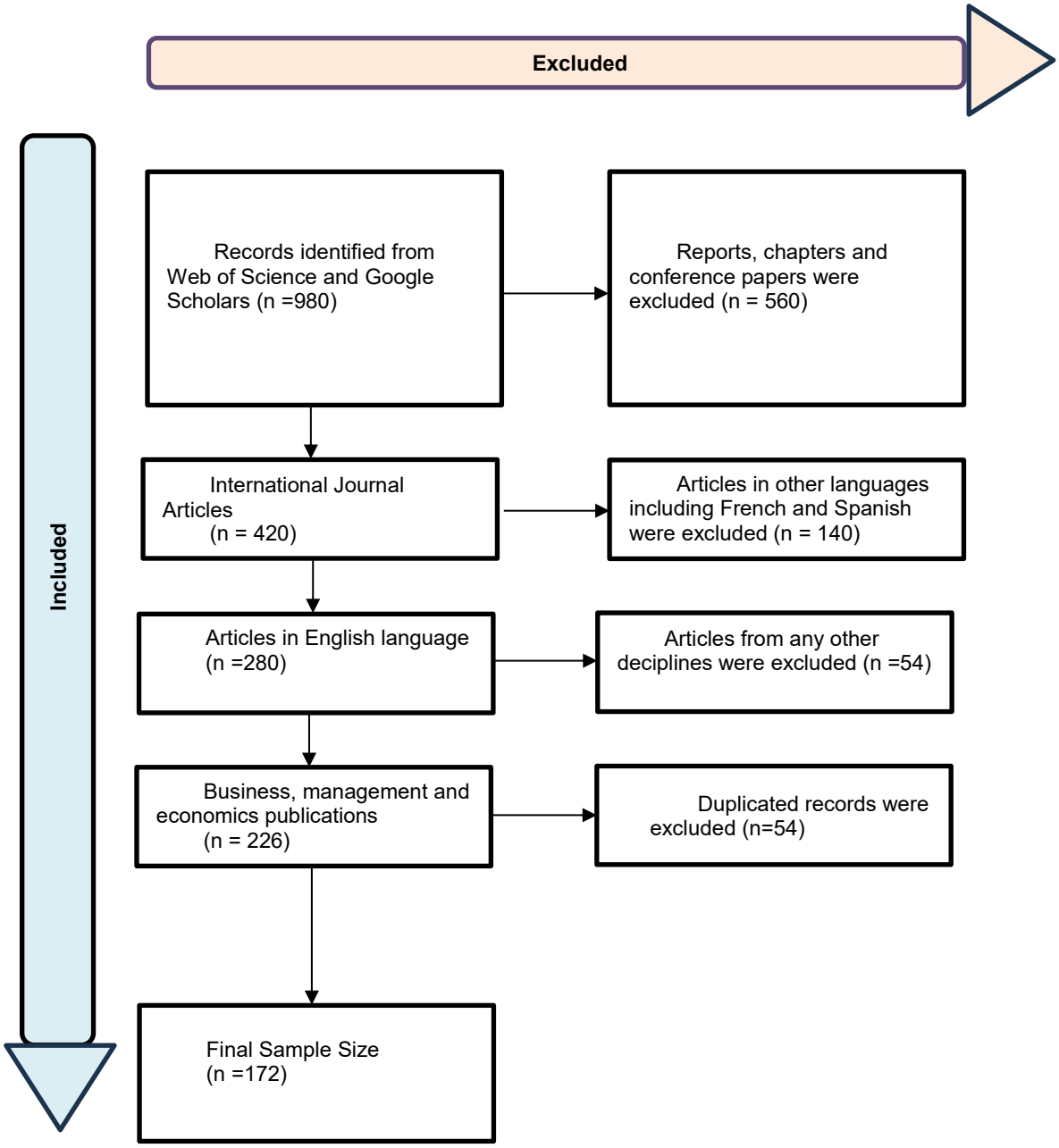

Figure 2 Criteria for articles inclusion and exclusion (Adapted from page et al.2021,1)

Finally, as presented in figure 2, the researcher employed specific inclusion and exclusion criteria to determine an accurate and reliable sample. The final sample of 172 articles were determined and the author went through the text of the articles to conduct the

systematic review process. The following sections of the study, indicate the analysis and reporting procedure.

2.3 Data Analysis

Data analysis in qualitative study consists of several steps and the researcher might need to collect and analyse data simultaneously. Therefore, in this method, data analysis is conducted in a recursive manner where the researcher can move back and forth between collecting data and analysing to explore for more themes and patterns (Soiferman 2010).

The collected data in this study were analysed by utilizing content analysis methods. According to Krippendorff (2013,10), “Content analysis entails a systematic reading of a body of texts, images, and symbolic matter, not necessarily from an author’s or user’s perspective.” In addition, content analysis is a research method for extracting repetitive information from texts to the context of the topic, to better understand and interpret the meaning of the selected text in the summarized form. (Krippendorff 2013, 24; Creswell 2009, 185) In this regard, Creswell’s (2009) data analysis framework was employed to carry out the content analysis. Figure 3 below adapted from Creswell (2009,185) explains the logical flow of data analysis from raw data to analysing the meaning of recurring themes and patterns. (Creswell 2009, 185)

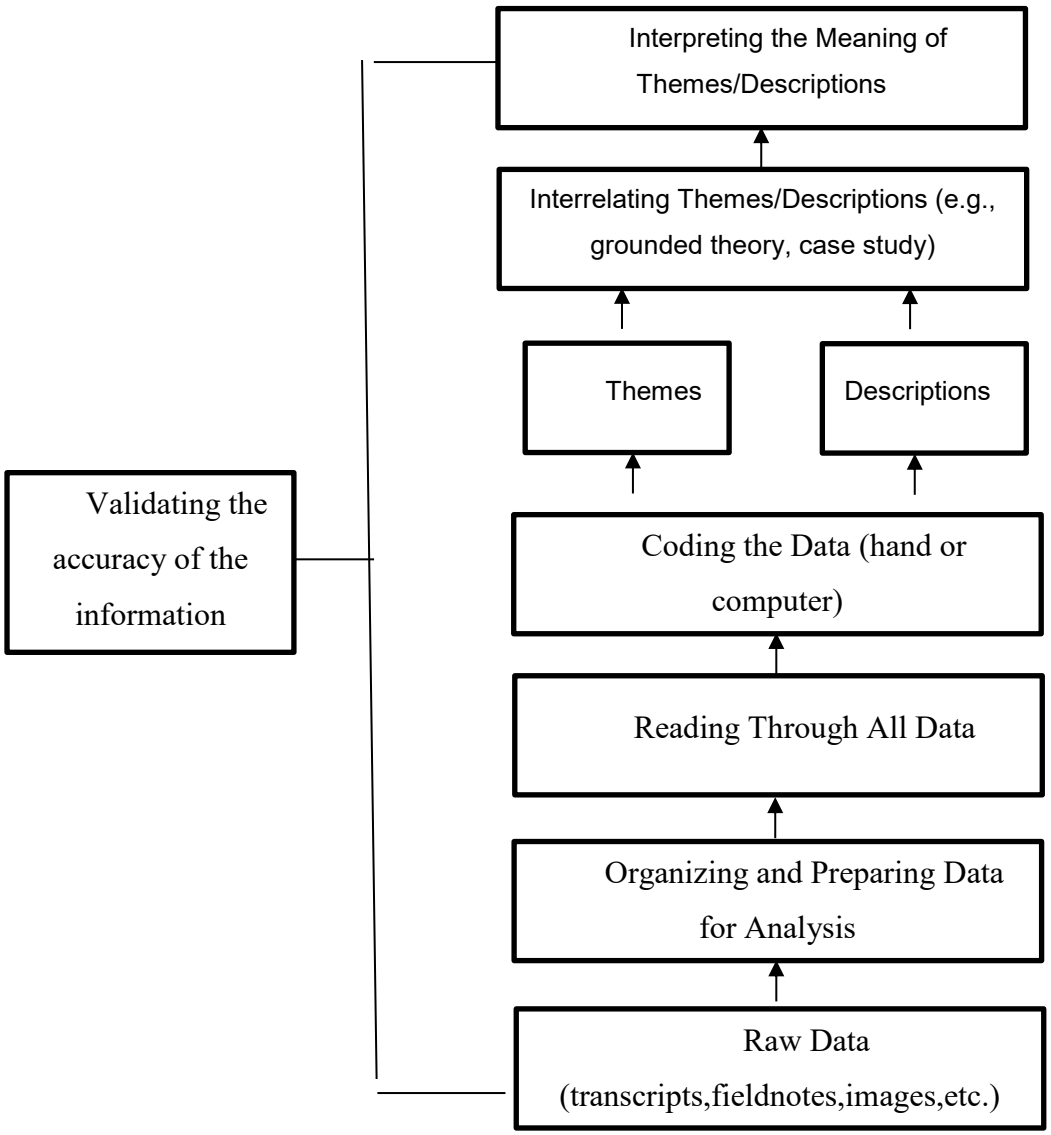

Figure 3 Data analysis in qualitative research (Creswell 2009,185)

First, to collect raw data and prepare them for analysis, the author conducted a systematic literature review to search for the relevant articles through accredited databases and organized the articles by employing PRISMA guidelines.

Second, after data collection being conducted, the author delved into all the articles collected for the systematic literature review to gain insights into eco-innovation and market shaping strategies.

Third, the author coded the collected data manually and didn't utilise any software for categorising and labelling specific concepts related to eco-innovation and market shaping. The author developed the coding process based on the existing literature. For instance, studies on market shaping focused on the different aspects of this topic including

evolution in market shaping definition, drivers of market shaping strategies, different intentions, and targets of market for shaping a market, stability of the market configuration, and different market shaping strategies. Similarly, literature on eco-innovation was labelled by different identified themes including challenges of eco-innovation, drivers of eco-innovation, types of eco innovation based on novelty including incremental and radical innovation, or based on focus including product, process, and organizational innovation.

Fourth, after labelling the data with relevant themes, the author started to look for connections between different codes from eco-innovation and market shaping to uncover the relationship between these two sub-topics. This step involved synthesizing the identified themes and descriptions and the author analysed how relationships between different themes contributed to the main research question. In this step, the author realised that there are overlaps between different levels of eco-innovation drivers and different drivers of market shaping.

By following creswell (2009,185) framework, the author gained valuable insights into the role of eco-innovation in employing market shaping strategies inside firms.

2.4 Research Trustworthiness

Research quality assessment is one of the most important parts of a research process and specific assessment criteria is needed to describe the trustworthiness of the research. (Eriksson & Kovalainen 2008, 290) Research evaluation can be affected by researchers own perception of the data and bias, research method and the results. Conducting qualitative research gives the researcher certain flexibility regarding presentation of the research. Therefore, evaluation of a qualitative study is often less straightforward than the evaluation of a quantitative research. Thus, utilizing specific assessment criteria for description and evaluation of the research process is crucial for the transparency of the study (Haavisto 2014). In this regard, Lincoln & Guba's (1985) credibility criteria is used to evaluate the trustworthiness of this study. These criteria are credibility in the trustworthiness of findings, applicability of the research process in other contexts, dependability of the findings, and confirmability or the degree of neutrality of interpretations. (Lincoln & Guba 1985, 294-296).

First, study results aligned with facts improves the study's credibility. (Lincoln & Guba 1985, 294). Several factors, including utilizing a scientific research process, applying a suitable sampling frame, choosing a qualified sample and a sufficient sample

size, can boost the trustworthiness of the research and help to find results that align with the facts. In this regard, careful consideration was given to selecting appropriate key words to find prevailing literature close to the research question and research topic. Furthermore, PRISMA guidelines' inclusion and exclusion framework was utilized to find a proper sample size of literature for the systematic literature review. Moreover, samples were collected from accredited databases including Web of Science (WoS) and Google Scholar, and were only journal articles, books, and studies from related field academic publications. Finally, different steps of the research process including data collection and data analysis were elaborated by the author in the previous chapters to further ensure the study's trustworthiness.

Second, transferability of research process helps to understand how well the findings can be applied in other research contexts and provides evidence for measuring the generalizability of the results. (Lincoln & Guba 1985, 297). This study's systematic literature review has referenced all the publication used for the review which is referenced in Appendix section to be applied to a wider variety of studies.

Third, the other criteria mentioned to impact the credibility of a research is dependability. (Lincoln & Guba 1985, 299). Good research should provide proper information about the different processes of conducting the research. (Eriksson & Kovalainen 2008,294) In this study, to increase that the study's consistency, the author elaborated each step of conducting the research to ensure the dependability.

Fourth, the last criterion by Lincoln & Guba (1985) is confirmability. This criterion examines the extent to which findings are based on facts, and not based on the researcher's bias and interest. The researcher should not force to build a relationship between two concepts but should rely on facts to interpret the relations. (Eriksson & Kovalainen 2008, 294) In this regard, the researcher tried to provide the reader with high levels of conformability by focusing on the literature and what they revealed.

Overall, the criteria developed by Lincoln & Guba (1985) are fulfilled convincingly in this research, and this study attempted to establish a satisfactory level of credibility, transferability, dependability, and conformability to ensure the trustworthiness of the findings. However, there were certain limitations and challenges to the research. To begin with, the author only used Web of Science (WoS) and Google Scholar to search for journal articles and excluded other available databases. This might have some negative effects on accuracy and reliability of the research's interpretations. Second, eco-innovation and market shaping are both new research fields and the emerging literature

on these two topics is fragmented and is characterized by significant ambiguity. (Sprong et al. 2021,450; Kaartemo & Nystrom 2021,458) This presented a new challenge for the author to conduct the literature review due to the novelty of the key terms. This challenge was specifically evident when the author searched for articles that combined eco-innovation and market shaping. The relative novelty of this specific pairing limited the number of relevant results found by forward searching. In addition, to explore the prevailing studies on the relationship between these two sub-topics, the author employed backward searching by examining the reference lists of key articles on each sub-topic. However, prior studies only addressed the relationship between technology and innovation, and market shaping, indicating the relative novelty of this specific research area. Furthermore, from the beginning of my research process, I decided to study the role of eco-innovation in market shaping strategies. However, as I delved deeper into the literature, the possibility of market shaping influencing eco-innovation emerged as a potential topic. Therefore, the author had constantly the challenge of deciding which of the sub-topics are the more dominant force. After careful consideration, the author ultimately chose to investigate "the role of eco-innovation in market shaping strategies". This decision stemmed from the compelling evidence that eco-innovation serves a driver for market transformation towards sustainability. However, the possibility of market shaping influencing eco-innovation is an interesting potential direction for research and investigation for researchers interested in eco-innovations and market shaping strategies.

This chapter ends with the evaluation of the study findings. In the next chapter, the author provides detailed discussions regarding market shaping and eco-innovation to help illustrating the study framework.

3 The role of eco-innovation in market shaping strategies

This chapter entails a concise review of relevant literature on eco-innovation and market shaping, to create the initial framework for this study. Furthermore, this chapter begins by presenting the body of knowledge used for designing the theoretical framework of this study. After that, in section 3.2, the researcher will define market shaping activities. This will provide a summary of the numerous definitions of market shaping in the extant literature. Then, in section 3.3, the author reviews the relevant literature on eco-innovation and elaborates on eco-innovation activities and processes. These two sections will entail numerous definitions of the terms market shaping and eco-innovation discovered in the literature to lay the foundation for the preliminary concept that will help to create a study framework which is presented in chapter 4.

3.1 Body of knowledge

This study reviewed 172 journal articles of 72 publications as part of the systematic literature review process. This process involved an extensive search of academic databases encompassing Volter, Web of Science, and Google Scholar. Through database searches, papers were chosen carefully from scholarly journals, each specializing in a specific field. Table below depicts a more detailed categorized vision of the journals and the corresponding number of articles analysed from the publications. This table is sorted in descending order, beginning with the dominating publications in this review process and ending with the least frequent publications. As it is organized in table 1, most journals chosen for this review have a significant emphasize on business and marketing research, sustainability, social-responsibility, and environmental management, which is evident in the titles such as “Industrial Marketing Research”, “Journal of Business Research”, “Journal of Cleaner Production”, and “Corporate Social-Responsibility and Environmental Management”. Additionally, this review compiled a list of other journals related to various publications and field of studies. These remaining 36 publications each had one journal article published.

Table 1 List of reviewed journals

Name of the journal	**Number of articles reviewed**
Industrial Marketing Management	**16**
Journal of Business Research	**12**
Journal of Cleaner Production	**10**
Corporate Social-Responsibility and Environmental Management	**7**
Marketing Theory	**6**
Research policy	**6**
Business Strategy and The Environment	**5**
Ecological Economics	**5**
Journal of Business & Industrial Marketing	**5**
Strategic Management Journal	**5**
Journal of Marketing	**4**
Consumption, Markets & Culture	**3**
European Management Journal	**3**
Industry & Innovation	**3**
Journal of Academy of Marketing Science	**3**
Journal of Operations Management	**3**
Journal of Product Innovation Management	**3**
Technological Forecasting & Social Change	**3**
Academy of Management Journal	**2**
Academy of Management Review	**2**
Administrative Science Quarterly	**2**
Ecological Economics	**2**
European Environment	**2**
European Journal of Innovation Management	**2**
Harvard Business Review	**2**
Innovation: Management, Policy & Practice	**2**
Journal of Management	**2**
Journal of Consumer Research	**2**

Table 1 Continued	
Organization Studies	2
R&D Management	2
Strategic Science	2
Sustainability	2
Environmental Innovation & Societal Transition	2
AMS Review	1
Electronic Green Journal	1
Environmental Engineering & Management Policy	1
European Business Review	1
European Journal of Marketing	1
European Review of Industrial Economics and Policy	1
International journal of Innovation Science	1
International Journal of Market Research	1
International Journal of Productivity and Performance Management	1
International Journal of Technology, Policy & Management	1
Journal of Business Logistics	1
Journal of East-West Business	1
Journal of Economic Literature	1
Journal of Economic Perspective	1
Journal of Engineering & Technology Management	1
Journal of Environmental Management	1
Journal of Experimental Psychology	1
Journal of Global Scholars of Marketing Science	1
Journal of Industrial Ecology	1
Journal of International Law	1
Journal of International Management	1
Journal of Marketing Theory & Practice	1
journal of Policy, Planning and Future Studies	1
Journal of Sustainability Development	1
Journal of Product Innovation Management	1

Table 1 Continued	
Management science	1
MIS Quarterly	1
MIT Sloan Management Review	1
Organization & Environment	1
Science (American Association for the Advancement of Science)	1
Sustainable Development	1
Technological Forecasting & Social Change	1
The International Journal of Life Cycle Assessment	1
American Journal of Sociology	1
International Journal of Environmental Research	1
International Journal of Research in Marketing	1

As illustrated in table 1, publications used for this study's literature review are mainly dominated by management, business, and economics fields. In author's point of view, this may indicate that there is less research exploring the intersection of eco-innovation and market shaping from other disciplines as environmental science, technology, and public policy.

Moreover, region-specific studies are identified in the journals used for the systematic literature review including "European Management Journal", "European Environment", "European Journal of Innovation Management", "European Business Review", "European Journal of Marketing", "European Review of Industrial Economics and Policy", showing the domination of studies in the European region.

Furthermore, a density visualization test was done which illustrates the most repeated authors in the reviewed journals. According to this density visualization, "Suvi Nenonen", "Hans Kjellberg"," Jonathan J Baker", "Mikael Ottosson" were the dominating authors found in market shaping literature. Additionally, "Clayton M Christensen", "Klaus Rennings", "Angela Gonzalez-Moreno" were the most common authors in the innovation literature.

Likewise, figure 4 below illustrates the number of articles published each year. As it is evident in the figure, there has been an increasing interest in the number of articles published in sustainability, eco-innovation, and market shaping. Also, the data presents that most articles chosen for this study's literature review were published in the recent years.

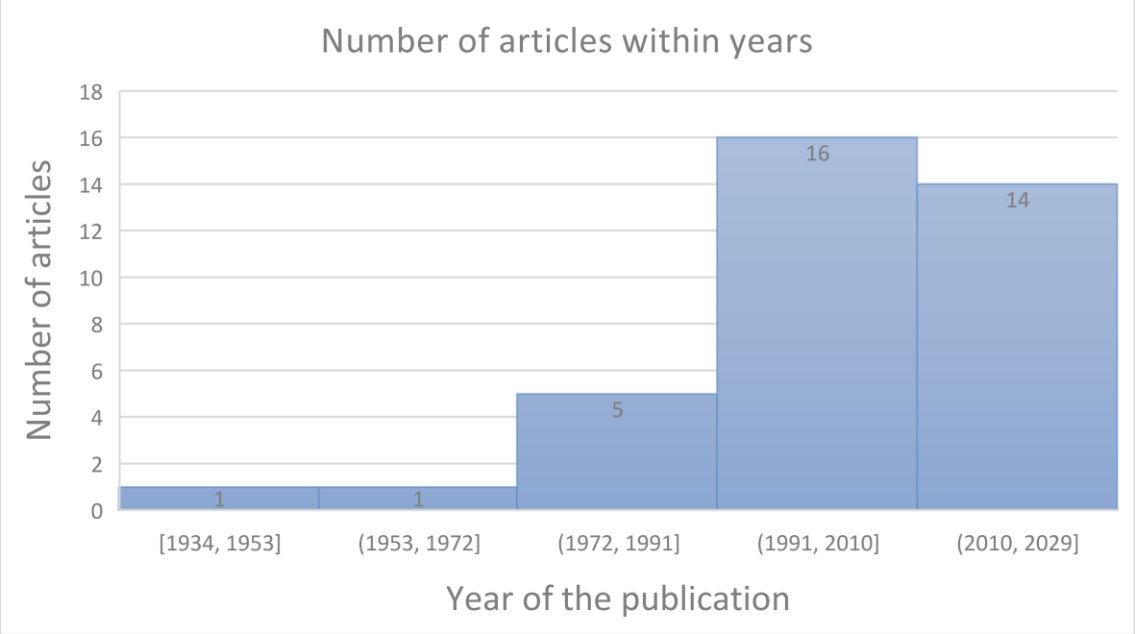

Figure 4 Number of articles published yearly

Overall, the figure suggests a positive trend of increasing research output on eco-innovation and sustainability, and market shaping. According to data, most articles on these topics were published in 2015 with a total number of 18 articles. After that, 2012 and 2015 had the most published articles with the total number of 16 and 15 articles accordingly.

3.2 Market Shaping

3.2.1 Conceptualization of market shaping

Market shaping is a strategic process driven by actors of the market with the aim of shaping the market towards a desirable target. (Flaig et al. 2021, 254) This strategic process includes deliberate and purposeful actions meant to modify a market configuration to shape the market. (Hawa et al. 2020; Jaworski et al. 2020; Flaig et al. 2021) According to literature, "market-shaping is an empirical phenomenon in which one

or several actors attempt to bring about market change by proactively transforming or shaping their business landscape instead of reacting to it." (Diaz Ruiz et al. 2020,1389). Similarly, Nenonen et al. (2019,619) define market-shaping as "a purposive process by a focal firm to (1) discover the value potential of linking intra- and inter-(actor) resources in novel ways, (2) trigger changes in various market characteristics to enable the formation of new resource linkages, and (3) mobilize relevant (actors) to free up extant resources for new uses".

Accordingly, market shaping is an array of purposeful activities a firm employs to improve its competitive advantage in the market. (Gavetti et al, 2017) These activities aim at improving the current market configurations or creating a new market from scratch. (Flaig et al.2021, 255) Over time, markets can undertake drastic changes or new markets can emerge which in some cases this might generate some challenges for firms. As an example, in automotive industry the case of low emission vehicles including electric, hybrid and fuel-cell vehicles, created a new market space and forced automotive firms to make major technology design changes. (Pinkse et al. 2014, 43)

Literature on market shaping historically emphasized on the assumption of pre-existence of markets. In this view, firms often enter a predefined market, in which firms react to the market needs and discover opportunities to reach equilibrium. However, recently, studies are questioning the neo-classical market definition, and marketing scholars have shifted from treating markets as something predetermined towards viewing markets as configuration of interdependent elements. According to scholars, markets are constantly changing and evolving, and equilibrium which previously was the main aim of market shaping, currently has no say in the matter (Kaartemo et al. 2021; Storbacka et al. 2011a).

Over the past three decades, a rapidly growing body of scholarly work has been dedicated to new market creation or shaping the existing markets (Sprong et al 2021,450). However, despite the growing motivation within both academia and industry practitioners, this phenomenon is still nascent domain, and a unified definition for market-shaping remains lacking. Marketing studies and market shaping scholars are labelling the market shaping under different titles including "proactive market orientation", "market driving strategies", "market scripting", "market innovation", "market work", "market creation" and "market co-creation". (Peters et al.2020, 1403; Flaig et al.2021, 356; Pitelis et al.2018,494) In this regard, Flaig et al. (2021,356) tried to identify different concepts

including the market shaping phenomenon by reviewing several articles, and the most common concepts were market innovation, market driving, market scripting, proactive market orientation, market formation, and market creation. (Kjellberg et al. 2015; Hills & Sarin 2003; Jaworski et al. 2000; Storbacka & Neonen 2011; Narver et al. 2004; Struben et al.2020; Humphreys 2010) Together these concepts with their definitions provide a relevant and robust starting point for understanding complexity and adaptiveness of markets and comprehending the comprehensiveness of market shaping as a concept. Table 2 below depicts the several concepts that commonly include market shaping. The researcher has adapted several concepts encompassing market shaping dating from 2000 to 2019 from Flaig et al. (2019,356) by adding one latest definition from the relevant literature.

Table 2 Overview of seven key market-shaping terms (adapted from Flaig et al. 2021, 356)

Term	Authors	Description
Market driving	Jaworski et al. (2000,45)	"Influencing the structure of the market and/or the behaviors of market players in a direction that enhances the competitive position of the business."
Proactive market orientation	Narver et al. (2004,336)	"Understanding and satisfying customers' latent needs by leading customers in their satisfaction."
Market creation	Humphreys (2010,1)	"The creation of new markets as a political and social process, one affected by the environment that exists outside the firm or industry."
Market scripting	Storbacka & Nenonen (2011,259)	"The conscious activities conducted by a market actor in order to alter the current market configuration in its favour."

Table 2 Continued		
Market innovation	Kjellberg et al. (2015,6)	"Comprises the successful change of existing market structure, the introduction of new market devices, the alteration of market behaviour, and the reconstitution of market agents."
Market formation	Lee et al. (2018,243)	"The creation of new markets as a political and social process, one affected by the environment that exists outside the firm or industry."
Market co-creation	Pitelis et al. (2018,494)	"Market co-creation includes the creation of entirely new markets through the complementary efforts of business ecosystem participants such as suppliers, customers, and even competitors, as opposed to the actions of individual firms."

If markets are recognized as institutionalised malleable systems of value-creation, they can no longer be seen as a pre-existing eco-system that is external to the firm. (Priem et al.2013,481) Furthermore, research streams in market shaping entail that markets are complex adaptive systems where established firms, typically referred to as incumbents, can actively influence them. (Werner et al.2022,13) These changes in the conceptualization of markets, highlight the significance of market scripting and results in the emergence of a stream of literature known as market shaping phenomenon. (Kaartemo & Nystrom 2021,458) In this master thesis study, the author has decided to adapt and utilize the definition of market shaping by Pitelis et al. (2018,494) "Market co-creation includes the creation of entirely new markets through the complementary efforts of

business ecosystem participants such as suppliers, customers, and even competitors, as opposed to the actions of individual firms." and the definition by Lee et al. (2018,243) "The creation of new markets as a political and social process, one affected by the environment that exists outside the firm or industry.", as these two definitions emphasize the co-creation of markets, in response to the existing environment outside the firm or industry, through the efforts of business participants.

3.2.2 Drivers of market shaping

markets are open to manipulation by many actors, and not just producers and users (Baker et al,2019) Markets are inherently a nonlinear and dynamic phenomenon and therefore market shaping drivers causes predictable, unpredictable, longitudinal, and divergent changes in the market. (Nenonen et al. 2019, 627) As discussed earlier, scholars argue that market shaping is purposeful actions to create a new market or modify the current market. Markets are constantly shaping, and new or improved practices, processes, and solutions are methods to shape a market.

Baker et al (2019) propose the theoretical framework "institutional work" which explains that institutional practices are the product of activities by individuals and organizations in the market. These activities may reproduce or transform the existing institutional practices in the market. These institutional practices can be enacted within micro-, meso- and macro-levels. First, micro-level actions are undertaken by individuals or organizations. Second, meso-institutional level includes government and organizational field bodies. And lastly, social collectives which occur at macro-level. (Baker et al,2019)

Prior studies on market shaping demonstrate that consumers play a significant role in actively participating in market formation and having an impact on market shaping. This consumer participation can range from being active market user to being active market shapers. (Kjeldgaard et al.2017, 51) Consumers may also shape the market dynamics intentionally or unintentionally. Furthermore, market shaping is a result of many interacting forces including technological innovations, competitive pressure, and struggles among consumers and producers. (Giesler, 2008, 1403) In this regard, scholars posit that while technological development might enhance market shaping activities, market-shapers do not often develop technology. (Kaartemo et al,2021) Scholars

accordingly have conducted research on service-dominant logic ecosystems, value co-creation and the practice of market actors. (Hawa et al,2020)

Similarly, the discourse on market conceptualization is defined as a system that serves as an enabling infrastructure to serve the participants such as suppliers, customers, and other stakeholders. (Mele et al. 2008, 104) In this regard, one of the repetitive themes in market shaping literature is value co-creation and value-proposition. (Storbacka et al,2011). However, there aren't handful of research considering how market shapers can guarantie that the created or shaped market is considered as viable. (Peters et al.2020, 1403) In addition, the viable system approach (VSA), emphasizes on viability of the market system by adding a further characteristic of adapting to changing environments by identifying a role to play in each new context. (Barile et al., 2012, 451)

Moreover, market shaping scholars underline the role of ideas in market shaping practices. Based on literature, ideas play a performative part in forming markets, as ideas are converted into market practices. (Kjellberg and Helgesson 2006, 139) In this regard, literature identifies three interlaced market practices including exchange practices that emphasis on the activities of consumers and producers, normalizing practices that pay attention on how regulating goals are created, and representation practices that portray how markets work. (Kaartemo et al. 2017, 261)

Furthermore, to analyse the interaction between firms and the systems they are surrounded with, the dynamic capabilities that allow firms to shape markets to their favour help firms to impact the market. (Werner et al.2022,13) Firm's dynamic capabilities refer to the ability of a firm to acquire and reconfigure new knowledge resources to generate revenue producing products in interaction with other market actors. (Eienhardt & Martin 2000, 1107) In this regard, literature identifies markets as complex exchange systems with the aim of value-creation which can be influenced by different actors. (Cava et al,2021) Considering that markets are complex and adaptive systems including a wide range of actors constantly making changes to the market, the practices of these different actors intentionally or unintentionally shape the market. (Sprong et al. 2021, 451) In this case, market actors attempt to dominate the market shaping process, either by changing a market configuration intentionally or by preventing an emerging change in the market. (Kjellberg et al.2015, 4)

Recent studies on market shaping propose a neo-institutional theory, which explains the market changes due to the relational changes. (Baker et al,2019) Nenonen et al (2019) argue that there is an interaction between a firm's dynamic capabilities and its ability to

impact the market. Generally, these capabilities enable firms to deal with changes in the market. In other words, these capabilities enable firms to be reactive to the changes in the market or to make changes. Furthermore, market shaping is purposeful actions by the means of redesigning the network of stakeholders involve, reforming the institutions that govern the stakeholders aiming at creating new opportunities to link different resources to create a new value in the market (Nenonen et al, 2019). Moreover, radical innovation can also be considered as a market shaping action. However, literature on market shaping phenomenon is not thoroughly covered in radical innovation studies (Nenonen et al, 2019) Incremental changes in the market are not considered as market shaping actions. In fact, market shaping goes beyond incremental changes, and it brings on a degree of novelty that either transforms the existing market through dramatic changing behaviours or create new ones. (Nenonen et al, 2019)

3.2.3 Targets and intentions of market shaping

Market outcomes are not the shaping of market itself, but the condition of market after configuration. (Flaig et al. 2021, 254) In other words, markets are outcome of a strategy. (Storbacka 2019, 4) Market shaping targets may differ in several ways; however, they are mainly focused on improving a company's position. Main reasons behind undertaking any market shaping strategies can be higher value creation, growth and gaining profits (Storbacka et al,2021). One of the most highlighted targets of market shaping strategies in the emerging literature is value propositions, and both value propositions and markets are conceptualized as interdependent elements. (Nenonen et al. 2020, 276-277) Many studies suggest that the aim of market shaping is the improvement of the value creation and value realization for different actors in a market system. (Nenonen et al. 2019, 619; Mele et al. 2008, 104) In other words, market shaping strategies can mobilize focal actors of a market to provide value by making improvements in their resource integrations. (Nenonen et al. 2019, 277) In addition, market themselves can be shaped for higher value creation, growth, and probability. (Storbacka & Nenonen 2021, 337) In this regard, relevant literature suggests that successful market shaping strategies are results of a discontinuous leap in the value propositions. (Kumar et al. 2000, 129) In addition, market incumbents can offer market shaping value propositions that involves other focal actors in the market to create a shared view of the current market.

(Storbacka & Nenoen, 2011, 255) Furthermore, studies proposes that value propositions are market shaping devices and are result of the interactions between various market actors. (Kindstrom et al. 2018, 38) By combining different resources in a novel way, new values can be created in the market. (Nenonen et al. 2019, 277)

Hawa et al. (2020,47) emphasize the role of intentionality in market shaping actions and suggest that market shaping is commonly understood as an intentional phenomenon. Furthermore, they introduce two different orientations for market shaping actions and propose a framework of market shaping intentionality with four distinct forms of intentions. According to their studies, the first market shaping orientation is temporality which refers to the present or future orientation of the market shaping intentions. And the second orientation is membership which refers to individual actors or groups. Therefore, they reveal four different types of market shaping intentions including conducting, choiring, practicing, and jamming (Hawa et al. 2020, 47).

Building on this foundation, as mentioned above regarding the theoretical positions of strategic participations in the market, future-oriented agency (also known as goal-oriented agency) represents purposeful intentionality and implies deliberate involvement in strategic activities and indicates that intentions are prior to taking actions to achieve a desired outcome. (Chia & Holt 2006, 647) In contrast, present-oriented agency (also mean-oriented agency) implies that intentions depend on the unfolding condition and actions that actors take. Overall, as markets are identified as a dynamic phenomenon, market shaping intentions have also dynamic nature. Market shaping actors can simultaneously take part in multiple forms of market shaping intentions or frequently change them for another, as market shaping actions take place as an interdependent work by different actors in the market and the presence of different actors can prompt manifestations of different forms of intention. Therefore, market shaping targets can encounter modifications and multiple targets may exist simultaneously. (Hawa et al. 2020, 48).

Companies (Storbacka et al,2021), governments (Verbrugge et al, 2018), non-profit organizations (Herlin et al,2012) and individuals might have the power to shape the market towards the market shaping target. (Flaig et al. 2021,254) Governments and non-profit organizations targets of markets shaping are often similar and possess economic-, security-, and environmental-related concerns. (Verbrugge et al.2018; Herlin & Paziradeh 2012) Overall, all market shaping actors' pursuit of growing, gaining profits and fulfilling values affect the market shaping target setting. (Storbacka & Nenonen 2021, 337)

Furthermore, according to Flaig et al. (2021, 254) terms such as market widening, market creation, market innovation, are possible outcomes of market shaping practices which are discussed in detail in the following sections.

3.2.4 Market shaping strategies

3.2.4.1 Stable and unstable market configurations

Literature on market shaping has identified several market shaping strategies that enable a focal firm to move towards a favourable market target based on their intentions. (Flaig et al. 2021, 254) Market shaping strategies are a key mechanism that enable firms to enhance their performance and increase their competitiveness. (Brege & Kindstrom 2020) As mentioned earlier, market shaping practices happen either intentionally or unintentionally. (Sprong et al. 2021, 451) Depending on the market shaping intention, the related strategy can be offensive or defensive. In addition, market shaping strategy depends on the stability of the market. Different market actors can have different extends of stabilization and destabilization efforts based on their current position in the market. For instance, an established incumbent with an advantageous status may experience instability in market configuration differently from a beneficiary of a market change (Flaig et al. 2021, 254-256). Accordingly, a focal market actor may have various extends of stability in distinct market situations and will deploy specific market shaping strategies based on that. (Desarbo et al. 2005, 64)

Overall, the extant literature on market shaping has identified four market shaping strategies (Flaig et al. 2021, 254-256). Firstly, market widening as a type of market shaping outcome which focuses on expansion of a market. (Burr 2014, 22) Secondly, market reduction is identified as an outcome of market shaping based on dialogical delegitimating work by institutional actors, aiming at reducing the market. (Regany et al. 2021, 438) Thirdly, market maintenance refers to purposeful efforts aiming at preserving the market's current configuration and structure by deploying deliberate actions meant to impede market changes. (Beninger & Francis 2021, 299) Finally, the concept of market innovation as another outcome of market shaping encompasses the transformation of an existing market towards a desirable market, or creation of new markets detached from any established ones. (Martin & Schouten 2014, 856; Flaig et al. 2021, 256) In this master thesis, for the purpose of conceptual clarity, the author referred to the disruption of an ongoing market as market innovation.

3.2.4.2 Market widening

Market widening activities aim to enlarge the existing market to increase its value creation. (Tantalo & Priem 2014, 314) Market widening strategies don't necessarily attempt to alternate the underlying vision of the market, but rather attempts to enable the entrance of additional market actors and activities and mitigate the entry burdens. (Flaig et al. 2021, 257) Market widening can happen through means of originating a market infrastructure (Lee et al. 2018, 243), reducing price points (Nenonen et al. 2019, 251) and deregulation (Kjellberg et al. 2017,97) For instance, in the case of Tesla, market widening strategies happened through different means. Firstly, Tesla's market formation required the creation of a new market infrastructure to help the automaker function in the market and boost selling of an electric vehicle despite the absence of an infrastructure. Therefore, it was essential for Tesla to develop its own infrastructure to attract customers and other firms in the market with the same vision. Secondly, Tesla deregulate the sale laws of the automotive market by accelerating sales directly to the customers unlike other manufacturers who were selling through dealerships. Thirdly, Tesla slashed their prices globally on its electric vehicles to secure growth in the market demand and ultimately enabling a wider customer base to act as a part of the market (Flaig et al. 2021, 257).

Additionally, market shapers can widen the market with the means of coordinating standardization in the market (Nenonen et al.2019, 617), reframing the perception of the product (Azimont & Araujo 2007, 852), and delivering more values to different stakeholders in the market and obtain their increasing commitment to the market (Tantalo & Priem 2014, 315) For instance, in the case of Tesla, in order to accelerate the development of electric vehicles in the market, the automaker press for an standardization by making its patent freely available, hoping that other market actors would be encouraged to join the market. (String et al, 2015, 95) As a result, this standardization creates more value for various stakeholders in the market. (Neonen et al. 2019, 617) Consequently, Tesla recognized the benefit of participation of other automakers in working on electric cars (String et al, 2015, 95), and cut down the cost of battery production for itself and other actors that adapted the battery standard and therefore, a decrease in the price of electric vehicles was delivered as a value to the customers. Thus, Tesla's attempt to reframe the perception of the electric cars helped to widen the market as more automakers would join the market due to the cut down in production cost, and

more customers would join the market owing to the increased affordability (Flaig et al. 2021, 257-258). Therefore, Tesla has successfully managed to direct the process of market shaping, broaden the boundaries of its own market, and reframe the perception of a car by allowing other actors from other industries such as software, battery, and energy to join and capture value in Tesla's market. (Flaig et al. 2021; Shipley 2020)

3.2.4.3 Market innovation

Market innovation is the practice of incorporating innovation in an existing market structure or creating markets from scratch through entrepreneurial efforts. (Kjellberg et al, 2015) Market instability contributes to market disruption (Flaig et al. 2021; Bakers et al. 2019; Christensen & Raynor 2003) Market disruptions can arise from various sources of instability which can result in creation of new markets or market bifurcation. (Diaz Ruiz & Makkar 2021,39) Introducing radical innovations (O'Connor & Rice 2013,210), new value propositions or new business models (Tuominen et al. 2004, 207; Foss & Saebi 2016) can result in creation of a new market. (Kim & Mauborgne 2009, 84) Additionally, changes in market configurations made by actors such as reconfigurations in underlying market networks can also result in market disruption. (Mele & Russo-Spena 2015, 105)

For example, Apple launching iPhones can be considered as a radical innovation and market disruption strategy. (Flaig et al. 2021,259) The disruption strategy of introducing App Store as a platform, reconfigured the underlying market networks by making a connection between developers and users and locked both actors into Apple's own ecosystem based on a new value proposition that caters for all the actors in the market, therefore, created a new value network (Christensen et al. 2015; Flaig et al, 2021). Moreover, Apple modified the existing standards of the customers' expectations of a phone, as Apple focused on the iPhone's aesthetics, easy access to multimedia entertainments and improving the ease of use, while industry incumbents were emphasizing on the functionality and communication. Hence, Apple disrupted the mobile phone market by creating a new vision being so radically different from the existing visions followed by the market incumbents that it couldn't be reconciled by the old one, requiring the market incumbents to adapt to the new situation or left behind. (Gavetti et al. 2017; Flaig et al, 2021)

3.2.4.4 Market Maintenance

Market maintenance strategy attempts to retain the current market configurations resilient to external influences and stabilize the preferred market vision. (Beninger & Francis, 2021,293) Therefore, market actors initially emphasize on the reinforcements within the established market and counteracting the threats to the market stability. They achieve market stability through engaging in resilience work. (Humphreys & Carpenter 2018, 293)

Many studies have conceptualized resilience (Linnenluecke 2017,4) and the definitions mainly focus on the ability to maintain functions and structures in the case of configurations. (Allenby & Fink, 2005, 1034) These market shapers are influential due to their network position and current status. (Humphreys & Carpenter 2018,141) If new market actors threaten the status quo, market incumbents try to control the market by overlapping their organizational boundaries with market boundaries in a way to acquire the market as much as possible. Thus, by this way they remove the destabilizing factor from their stablished market. (Santos & Eisenhardt 2009, 658)

As an example of market maintenance strategy, Flaig et al. (2021,259) analyse the case of Google and how they maintain the market as a search engine. Because Google is the most visited website in the world, generalizing the verb “to google”, Google’s level of influence and its status as an actor in the market, enabled Google to maintain the market and dictate the rules in the entire market. Furthermore, Google’s search algorithms exclude websites utilizing the same algorithm format and reduce their chances of being accessed on the internet; therefore, mitigate the competition level in the market Additionally, Google is known as the first data aggregator and constantly attempts to acquire its market by improving its data aggregation resources and impeding the competition of rivals that could destabilize the market (Flaig et al.2021, 259).

3.2.4.5 Market Reduction

Market reduction strategies are often deployed by actors in the market who attempt to enhance their performance outcomes and dominate the market. These market reduction strategies focus on stabilizing the market around the vision of market incumbents by enhancing the exclusionary influence of market shaping strategies (Cova et al. 2020, 485). Market reduction strategies is focused on excluding any market actors or any activities in the market that impedes achieving the target market vision. (Flaig et al. 2021, 260) In

other words, focal market shapers might acquire any rivals acting in the market to boost their own market shaping power and further guiding the market towards their own market vision. (Flaig et al. 2021; Kachouie et al. 2018; Santos & Eisenhardt 2009)

Furthermore, Baker & Neonen (2020, 240) defines collective market work as "the orchestrated purposeful actions of a collaboration to shape a market" and posit that market incumbents can establish an alliance that impedes the entrance of new market shapers that might interrupt their market shaping process, as the collaborative efforts of small firms are not as influential as the large market influencers. (Baker & Neonen 2020, 240-241) Moreover, market actors following market reduction strategies can patent their intellectual properties and exclude a wide range of market actors in order to reduce the rivals' activities in the market and shape the market in their favour. (Geiger & Finch 2016, 72) In addition, market reduction strategies include the concept of boundary work which implicates the attempts of a market shaper to limit the market by setting distinct boundaries around the established market proposition. (Chimenti 2019, 130)

Lastly, market shapers might set market reduction strategies by increasing the prices with the aim of excluding price-sensitive actors from the mark and improving the stability of the market by further integrating the market with the vision of market incumbents. (Flaig et al 2021) As an example of market reduction strategy, the market shaping strategy pursued by EssilorLuxottica can be sectioned in this category. Essilor and Luxoticca both implemented market reduction strategies before merging to become the world's largest supplier of eyewear. Luxottica focused on acquiring frame-makers, eyewear brands and retailers and leveraging retail stores networks by selling solely Luxottica-made frames or excluding them from the market aiming to reduce the number of market actors in the eyewear market. Meanwhile, Essilor focused on enhancing the research and development which brought them over 8000 patents and enabled them to reduce the market (Flaig et al. 2021, 64).

3.2.5 Market shaping strategy framework

As mentioned earlier, market shaping strategies vary based on the stability of the market. (Flaig et al. 2021, 254) In stable market configurations, market shaping strategies can be utilized either to decrease the destabilizing actors' entry or to modify the prevailing market characteristics incrementally. (Kjellberg et al.2015, 4) In order to mitigate the emergence of new market changes, market actors can focus on reinforcing the established

vision of former market actors and the existing customer preferences. (Jaworski et al. 2020,142) Additionally, in slight modifications in a current market configuration, the aim of the market shaping strategies are to increase the share of the value pie instead of disrupting the market, by widening the market to incorporate more market actors to ultimately increase the value creation and value capturing in the market. (Tantalo & Priem 2014,314)

In this regard, Hawa et al (2020) posit that two theoretical positions exist regarding strategic responses to the market: future or goal-oriented agency and present or mean-oriented agency. Future agency is central to actors' effort to shape the market, while present agency is dependent on the unfolding situation of the market and the actions that actors accordingly take. Furthermore, Hawa et al (2020) identified two different levels of participation in market shaping including individual intentions, which includes adopting to different strategies, and collective intentions which attempt to transform markets jointly and they propose four different categories of market shapers including conducting, practicing, jamming and choring. (Hawa et al,2020) Firstly, conducting which implies that a market actor intentionally maintains the market institutions by disrupting the market or creating a new one. Secondly, choiring which refers to collective act of the market actors with shared future-oriented intentions which displace the market status quo. Thirdly, practicing which means the individual present-oriented intentions which lead to practices that make incremental changes in the market. Lastly, shared present-oriented intentions which contributes to routinized joint actions in the market which can lead to incremental changes.

In market configurations identified as unstable, shaping strategies are to isolate interlinked actors to help a reconfiguration happen in the market. (Storbacka & Nenonen 2011, 255) In unstable market configuration, market shaping strategies focus on market innovation by creating a new market or by transforming the existing market configurations. (Flaig et al. 2021; Baker et al. 2019; Kjellberg et al.2015) As examples of these market disruption strategies, significant changes in the current configuration of the market can take place as substantial reconfiguration in networks or the introduction of new value propositions in the market. (Flaig et al. 2021, 256)

Depending on the stability of the market that firm performs in, firm's competitiveness, and market shaping goal, firms will pursue different market shaping strategies. (Hawa et al. 2020, 54) Based on these strategic intentions, a focal actor might take these market shaping strategies either offensively to change the status quo, or

defensively to maintain and defend the current state of the market. (Hawa et al. 2020, 48) In other words, defensive market shaping strategies aim to protect the market from possible changes and to improve the value capturing potential, while offensive market shaping strategies aim to make reconfigurations in the market and claim the market. (Beckert 2010,620) Defensive market shaping strategies are usually taken by current market leaders. (Palmer et al 2019, 223)

Figure 5 below highlights important aspects of the strategic applications of different market shaping practices and propose a framework for market shaping strategies based on different market shaping intentions. This framework emphasizes the view of markets as continuous processes of stability and instability forces that can be manipulated by actors in the market.

Offensive market shaping strategies		**Defensive market shaping strategies**	
Market Widening	**Market Innovation**	**Market Maintenance**	**Market Reduction**
Introduce standardization	Reconfiguration of networks	Reinforcing replication of routinized practices and expectations	Acquiring market actors
Developing market infrastructure	Introducing radical innovations	Developing and maintaining longstanding relationships	Increasing price point
Reducing price	Introducing new value propositions	Exerting power through status	Patenting
Cognitive reframing of exchange object	Lobbying for new regulations and standards	Acquisition of competitors	Influencing regulations
Creating more value for customers and stakeholders	Triggering institutional change	Exerting normative pressures towards conformity	Forming alliances
Pursuing deregulation	Business model innovation	Coercing other market actors through clout	Building distinction/boundaries against well-established practices
⇩	⇩	⇩	⇩
Market growth	**New market**	**Market resilience**	**Monopolization**

Figure 5 Market Shaping Strategies Framework (adapted from Flaig et al. 2021, 261)

In sum, the concept of market shaping strategies highlights several key elements of markets. Firstly, firms pursuing market shaping strategies must consider that markets are not a pre-existing context and are defined as malleable value-creating systems constantly changing and evolving towards a market intention. (Priem et al.2013,481)

Secondly, market shaping activities do not solely influence the acting firm, but the whole elements of a market such as market structure, market behaviour and market actors are prone to change. (Kjellberg et al. 2015, 4)

Thirdly, the view of markets as ongoing processes of stability and instability that can be influenced by market shaping actors further suggest that a completely stable market can be shaped by market shaping strategies and activities of the actors in the market. (Kjellberg et al. 2015, Flaig et al. 2021)

Furthermore, firms choosing market shaping strategies cannot only focus on outcomes that improve their performance, but they should consider the market outcomes of their market shaping actions as the market influence the firm, as much as the firm influence the market (Teece 2009)

Finally, market shaping strategies often occur in collaboration between different actors. As different market actors have different market visions and intentions, market shaping strategies happen simultaneously and dynamically. For example, a market actor pursuing market disruption strategies will encounter the attempts of market maintenance or market reduction by the market incumbents. Similarly, a market disruptor might move towards market reduction once they accomplish their intended market reconfiguration and perhaps encountering a market widening strategy by the actors formerly pursuing market maintenance. (Flaig et al. 2021; Geiger & Kjellberg 2020).

3.3 Eco-innovation Management

3.3.1 Eco-innovation definition

Innovation is described as the ability to successfully implement new and creative ideas to make an evident difference and make these ideas commercially successful in the market. (Sandberg et al. 2013,228) According to a study, innovation management is defined as “the instances of implementation of new management practices, processes and structures that represent a considerable departure from current state of practices and become constituent to further organizational goals”. (Mol & Birkinshaw 2006) The

definition of innovation management gives an abstract linking of innovation with management objectives. (Yadav & Dubey 2023, 272)

According to studies, eco-innovation practices are type of innovations that improve environmental performance through sustainable developments. (Rennings 2000, Carrillo-Hermosilla et al. 2010; Diaz- Garcia et al. 2015) Eco-innovation concept differs from the general term innovation management, as it relates to technological advancements which cause a reduction in the negative impacts on the environment based on the dynamics of eco products, processes, systems of innovation, markets, and business strategies. (Macaneiro & Cunha 2012, 267) These environmental advancements are driven by external stakeholders and pressures such as governmental green policies and regulations in order to make better use of natural resources, or by the identification of competitive advantages through cost reduction or firm's improved reputation. (Cainelli et al 2011,329)

The topic of eco-innovation has been gaining widespread interest among academy members and practitioners in recent years. (Rennings 2000,319) Furthermore, technological innovation and sustainable development are becoming more prevalent themes in various fields, such as academia and business (Diaz-Garcia et al. 2015, 6). However, due to the only recent emergence of studies on the integration of sustainability and innovation, literature on eco-innovation is rather immature. (Pacheco et al 2018,44-45).

Eco-innovation can be referred to under several terms including: "green", "eco", "environmental" and "sustainable", however, eco-innovation has been the most predominant term in the articles. (Diaz-Garcia et al 2015,9) Gonzalez-Moreno et al (2013,2001-2008) provided a comprehensive list of several definitions which emphasize on the focus of the eco-innovation concept. Table 3 below is adapted from Diaz-Garcia et al. (2015,9) which tracks the evolution of eco-innovation definitions from 2000 to 2023 and depicts several definitions of the concept of eco-innovation management. Here, the author has added one latest definition from the relevant literature.

Table 3 Definition of Eco-innovation (Adapted from Diaz-Garcia et al. 2015, 9)

Author	Focus	Definition
Rennings (2000,319)	Motivation	Innovation processes toward sustainable development.
Kemp & Pearson (2007,8)	Effect	"The production, assimilation or exploitation of a product, production process, service or management or business method that is novel to the organization (developing or adapting it) and which results, throughout its life cycle, in a reduction of environmental risk, pollution and other negative impacts of resources use (including energy use) compared to relevant alternatives."
Eiadat et al. (2008, 133)	Effect	An array of manufacturing and production practices that compromise source and pollution reduction and implements a new environmental management system.
European commission (2007)	Both	Any form of innovation aiming at significant and demonstrable progress

		towards the goal of sustainable development, through reducing impacts on the environment or achieving a more efficient and responsible use of natural resources, including energy.
Oltra & Saint Jean (2009,567)	Effect	Innovations that consist of new or modified processes, practices, systems and products which benefit the environment and contribute to the environmental sustainability.
Carrillo-Hermosilla et al. (2010,1073)	Effect	Innovation that improves environmental performance
Kemp & Oltra (2011,249)	Effect	Eco-innovations are innovations whose environmental impact on a life cycle basis is lower than other types of innovations, which can be technological, organizational, intangible, or systematic.

The table above entails a summary of the numerous definitions of eco-innovation noted in the existing literature. In this thesis, the author has decided the latest definition by Aksu & Akman (2023) suitable for this study, as in contrast to traditional definitions,

this one emphasize the firms' mitigation of environmental effects as a response to the existing circumstances.

3.3.2 Eco-innovation challenges

Managing sustainability is challenging, especially as sustainability initiatives often involve capital-intensive investments. This can appear discouraging and give the perception that firms are not benefiting from it and that it is a loss of resources. (Janiski et al.2016, 1124). Traditionally, companies considered green strategies as a concept that contradicts firms' aims of growth and profitability. However, recently consumers' environmental awareness is rising, and more social and governmental pressure is on firms to reduce their environmental risks, firms must consider environmental concerns to succeed strategically and environmentally (Bossle et al.2016, 861).

To motivate responsible behaviours and encourage businesses to employ green strategies, it is important to demonstrate that these types of policies have positive impact on businesses' financial performance. (Zhu et al. 2006, 1043) Eco-innovations should affect organizational and consumption practices positively, and should compromise social, economic, and environmental dimensions when implemented. (Hellstrom 2007,148-149) The environmental concerns for innovation are either driven by the recognition that innovation practices can lead to cost reduction and/or improved reputation, or external pressures from stakeholders such as new governmental policies. (Diaz-Garcia et al. 2015,7) In this regard, according to Elkington (1997), the triple bottom line (TBL) approach assumes that, if organizations implement sustainability strategies and properly capture them, these strategies may compel a company to adopt a business model that aligns social and environmental values with financial ones. The concept of the triple bottom line (TBL) posits that accomplishing sustainability calls for a comprehensive integration and equilibrium between the financial, environmental, and social bottom lines (Elkington, 1997).

However, this concept may be controversial and challenging as the major issue with this concept is that organizations, as part of a broader socioeconomic system, engage with a variety of stakeholders, including the suppliers, competitors, governments, society, customers, and local communities, (Stubbs & Cocklin 2008,116). While some organizational adjustments may be feasible, sustainability-driven innovation must go beyond changing an organization's internal business procedures, practices, and policies.

A sustainable organization cannot function in an unsustainable economy, and the entire socioeconomic environment must support the development of global sustainability.

In addition, transition onto a sustainable production and consumption might take decades. (Janiski et al.2016, 1125). The transition of the global economy to sustainable development could be a very prolonged process that calls for the coordinated action of all stakeholders in areas such as switching consumption to sustainable products, long-term sustainable value development, and investment in infrastructure for a sustainable system. (Lozano,2015,34) As an example, if we consider the case of automotive industry, according to the International Energy Agency (IEA), markets for electric cars are facing exponential growth as the share of electric cars has more than tripled to 14% in 2022 compared to 4% in 2020. Additionally, over 2.3 million electric cars were sold in the first quarter of 2023, which as a result, electric cars sales were predicted to account for 18% of total car sales across the year. However, IEA has stated that electric vehicles sales in some developing countries have been slow due to high prices and lack of charging infrastructure. (IEA,2023)

3.3.3 Eco-innovation Drivers

According to studies, the existing literature on eco-innovation categorize the factors influencing eco-innovation into three main components. First, demand factors that represents the market demand for green innovation and includes the environmental awareness of consumes in the market. Second, supply factors that encompass the ability of innovators to collaborate and exploit knowledge. Lastly, environmental regulations which refer to institutional frameworks and governmental policies that improve eco-innovations (Hou & Guo 2023, 15631).

As eco-innovation can mitigate environmental impacts of a firm's production, its outcome is enormously affected by institutional legislations. The relationship between eco-innovation and businesses' performance varies across different firms. (Yao et al. 2019,1764) For instance, the market outcomes of eco-innovation depend on the current market institutions. Furthermore, managers for whom the existing legislations are eco-friendly, are more prone to perform eco-innovation in a product or service. (Triguero et al.2013,29)

Green strategies integration and environmental management in a firm's supply chain actions are important aspects of competition (Montabon et al.2007,999) and give

incumbents a source of competitive advantage in the marketplace (Jacobson 1992,782). In fact, when a focal firm perceives that a rival firm has employed environmental innovation activities, the focal firm will enhance its green strategies to respond to the rivals in the market. (Dai et al.2015,242-244) Similarly, after observing that a competitor is benefiting from implementing innovation within its critical departments, a focal firm would react to the signals sent to the market by rivals by attempting to take green competitive actions. (Hofer et al 2012, 70) Green supply chain integration consists of the integration of internal functions, as well as external integrations such as integrations with customers and suppliers to develop green products and processes. (Mishra & Shah 2009,329) Firms would be more successful in developing innovation if they involve customers in the ideation process. (Sambamurthy et al.2003, 240). For instance, competitive actions by a firm could be pursuing incremental or radical changes in products or services. (Dai et al.2015,245)

The environment literature identifies four critical categories of stakeholders that might affect manufacturing companies to employ eco-innovation practices. First, regulatory stakeholders, including governments which make environmental regulations. Regulatory stakeholders other than governments, such as informal networks, firm's competitors, etc., may have the power to influence governments to set environmental regulations. Second, organizational stakeholders which include consumers, suppliers, employees, and the shareholders. Third, community stakeholders which encompass community groups and environmental organization, have the power to shape the public opinion in favour or against a company. And finally, the media can influence society's perception of a company. The information that the media convey about a company influence how a company is perceived. (Henriques & Sadorsky, 1999)

Furthermore, legislations and policies set by governments can affect firms' activities and force them to maintain the environment from the negative impacts of their processes. Based on a study by Nguyen et al (2022), stakeholder's green pressures on firms, mitigates their negative impacts on the environment and obligates them to respond to environmental challenges (Nguyen et al,2022)

Drivers of eco-innovation is classified in three levels including macro, meso and micro. (Diaz-Garcia et al. 2015, 12) However, there are complementarity roles between these different levels as for example, an external impulse from third-party organizations like governments, local authorities, and NGOs (macro level) could be a pressure factor for firms with low absorptive capacity to employ eco-innovation practices. (micro level)

(Klewitz et al. 2012, 446) In this regard, (Diaz-Garcia et al. 2015, 12) posit that depending on the theoretical stance, some eco-innovation drivers are given more emphasize than others. For example, environmental economics literature relies on the role of governmental regulations and policies, while innovation literature emphasizes the importance of firm's capabilities and market demands and requirements.

Table 4 Drivers of Eco-innovation (Adapted from Diaz-Garcia et al. 2015, 18)

Level of drivers	**Example of drivers**	**Reference**
Macro	Regulation	(Horbach et al.2012,112)
	Policy instruments	(Brouillat & Oltra 2012,236)
Meso	Market demands	(Horbach et al.2012,115)
	Financing availability	(Johnson & Lybecker 2012, 1)
	Pressure groups	(Yalabik & Fairchild 2011, 519)
	Industry characteristics	(Peiro-Signes et al. 2011, 1893)
Micro	Firm's characteristics and structural factors	(Piera & Vence 2012)
	Firm's business strategy	(Horbach et al. 2012)
	Technological competences	(Horbach 2014)

In the following sections, the author elaborates on each level of eco-innovation drivers and explains how these drivers impact eco-innovation in each level.

3.3.3.1 Macro level drivers

According to studies, regulation drives eco-innovation (Horbach et al.2012, 112), and in this regard, Porter Hypothesis posits that environmental regulatory policies stimulate innovation and creates opportunities where environmental pollution is simultaneously

reduced and leads to increased firm's competitive advantages. (Porter & Van Der Linde 1995,99-100) Firms participate in eco-policy demand interventions and policy makers can stimulate growth and create a more sustainable society. (Diaz-Garcia et al. 2015, 13) In this regard, three types of producer responsibility tools are introduced to have an impact on eco-innovation including tax-subsidy, norms, and recycling fees and research results indicate that only tax-subsidy systems and strict environmental regulations and policies can lead to radical innovation and noticeable change in firm's products and processes. (Brouillat &Oltra 2012, 236) Environmental regulations might be more effective on development of eco-innovation processes that help reducing air, noise, or water emissions, preventing exposure to chemical substances in production, and improve recyclability of products. (Horbach et al.2012, 112)

3.3.3.2 Meso level drivers

Eco-innovation drivers at meso level include factors such as market demand (Horbach et al.2012, 115), financing availability (Johnson & Lybecker 2012, 1-10), pressure groups (Yalabik & Fairchild 2011,519), and industry characteristics (Peiro-signes et al. 2011, 1893–1901). (Diaz-Garcia et al. 2015, 14)

Changes in market trends can lead to opportunities for eco-innovation developments in the market, and customers and suppliers have a crucial role in improving the development of this type of innovation in firms. (Wu 2013,539) Moreover, several studies indicate that customer needs and market demands may have an impact on firm's decision to pursue eco-innovation activities. (Doran & Ryan 2012; Grunwald,2011; Horbach et al.2012; Wagner &Llerena 2011; Diaz-Garcia et al. 2015)

Furthermore, relevant literature suggests minimizing financial constraints to improve development of eco-innovation in SMEs. Public fundings plays a significant role in innovation financing. However, attracting external finance sources and venture capitals involves more difficulties for innovators in small businesses compared to other innovators, and the challenge is not only attracting sufficient financial resources, but to ensure continuous access to these resources during all stages of innovation development (Johnson & Lybecker 2012, 1-10).

Additionally, pressure groups are among the most effective stakeholders encouraging firms to employ eco-innovation in their process. As mentioned before, literature has identified four categories of environmental stakeholders, regulatory, organizational,

community, and the media (Guoyou et al.2013, 1-3). Firms refusing to react to these pressures, are prone to enduring potential loss, while establishing relationship with these stakeholders can lead to improvement in financial performance and firm's legacy. (Darnall et al.2008, 364)

3.3.3.3 Micro level drivers

Micro level drivers of eco-innovation refer to structure and characteristics of the firm, firm's business strategy, and technological competences. (Pereira & Vence 2012) Regarding structural factor, firm's size and age affect the eco-innovation adaption and development. However, the effects of firm's size are non-conclusive. (Diaz-Garcia et al. 2015,16) Some studies consider firm's size as representative of internal capacity to employ eco-innovations. (Segarra-ona et al. 2011) For example, literature on eco-innovation is mostly cantered on incumbent firms, practically disregarding SMEs. (Aragon-correa et al. 2008, 88) Moreover, some studies posit that SMEs are reluctant to incorporate environmental concerns in their operations (Revell & Rutherfoord 2003,26), mostly due to lack of improved financial performance and difficulties in implementing eco-innovation activities in their competitive advantages. (Simpson et al. 2004,156) On the other hand, there are studies that indicate firm's size doesn't have any influence on the possibility of a firm undertaking eco-innovation activities. (Wagner 2008, 392) In this regard, studies contend that SMEs have eco-innovation propensity. (Aragon-correa et al. 2008, 88)

In addition, regarding the effect of age on implementing eco-innovation activities inside a firm, literature in this regard shows that young new ventures have advantages in innovation and are more capable of responding to environmental challenges. (Keskin et al. 2013, 50)

Moreover, regarding firm's strategy and its business logic, literature emphasize the significance of managerial concern as a key factor for adaption and development of eco-innovation activities in firms. (Qi et al. 2010,1358) Although the development of eco-innovation activities requires integration of green strategies with the overall corporate strategy of the firm at the operational level and the managerial concern is not always a priority. (Diaz-Garcia et al. 2015,16)

Furthermore, considering the firm's technological competences, there are different views regarding this in the literature. (Diaz-Garcia et al. 2015,16) For example, some

studies suggest that implementing new technology in firm's green strategies is an important driver for eco-innovation activities, (Blum-kusterer & Hussain 2001, 300) and available technological capabilities and obtaining technical knowledge from external sources encourage further innovations. (Horbach 2008, 163) On the contrary, some studies indicate that technologies generating eco-innovation in a firm are characterized by higher level of novelty and complexity compared to those of other innovations, and eco-innovations recognized by higher degree of novelty are less valuable. (Petruzzelli et al.2011,291-292) Additionally, the most valuable eco-innovations are more highly dependent on internal and external information exchange and integration between different actors. (Foster & Green 2000, 288)

3.3.4 Eco-innovation types

Eco-innovation is classified as radical eco-innovation and incremental eco-innovation, regarding the degree of novelty or improvement of environmental performance of existing products and processes. (Chen et al. 2014, 7789) Scholars in innovation management distinct incremental and radical innovation by considering incremental innovation as continuous change that exploits existing competencies, whereas radical innovation represents major departures from the existing capabilities in the firms and aims to create new markets (Ritala & Hurmelinna-Laukkanen 2013, 158) and it involves a difficult and expensive process (Dai et al.2015,245) Literature in this regard emphasize that most eco-innovations taking place in the market is in the incremental mode. (Hellstrom 2007,149) However, to achieve sustainable emission targets, radical eco-innovation is the essential path to truly realize sustainable development. (Dai et al. 2015,245)

In addition, the substantial difference between incremental and radical innovation outcomes on the end-products in the market arise of the rather comparable knowledge bases that competitors often possess. (Ritala & Hurmelinna-Laukkanen 2013, 158) Accordingly, scholars in innovation management noted that firms interested in radical innovation need to utilize various external knowledge sources alongside their existing knowledge base. (Tushman & Anderson 1986, 439-465)

Moreover, technological intensity is a degree to which knowledge and scientific research enhance efficiency and productivity in a firm. (Plada 1986, 187) and plays an

important role in improving innovation in firm's processes. (Al-khatib & Al-ghanem 2022, 345) Furthermore, eco-innovation is also categorized by three different types including product, process, and organizational innovation. (Horbach et al. 2012, 113)

3.3.4.1 Product eco-innovation

A product eco-innovation is the commercialization of a good or service that is novel or significantly enhanced in terms of its characteristics or intended applications. (Triguero et al. 2013, 26) Product eco-innovations tend to be more costly compared to non-environmental ones, and firms tend to introduce this type of innovation to the market when it is rewarding. (Trebswetter & Wackerbauer 2008, 37) Cost-savings and reduced environmental damages are compatible with product eco-innovations, and this type of innovation can improve productivity if they reduce the needed inputs and materials for the production. (Triguero et al. 2013, 26)

In addition, implementing eco-innovation in firm's products and services, helps the firm to achieve an improved image in the market. (Triguero et al. 2013, 26; Pujari 2006, 78) This improved image promotes reputation and enables firms to differentiate their products and gain competitive advantages. (Renning 2000, 320) Benefits such as rise in sales or in price of the products can be relevant to environmental performance. (Bleda & Valente 2009, 513) The success of a product eco-innovation demands the reduction of environmental impacts at different stages of innovation development, as well as achieving success in the marketplace. (Pujari 2006,76) eco-innovative products need to be seen as such by consumers in the market, and innovation needs to be used and adapted over time. (Rennings 2000, 322) Environmental policies and regulations (macro level) are positively relevant to product eco-innovation and are important drivers of firm's eco-innovation adaption. (Horbach 2008, 166) Also, networking and accessing external knowledge sources like collaboration with universities, research institutes and agencies are highly relevant to product eco-innovation implementation. (Triguero et al. 2013, 26)

3.3.4.2 Process eco-innovation

Process eco-innovation refers to development of product and services with less negative environmental implications compared to conventional manufacturing process. (Rennings 2000, 322) A reduction of total waste and pollution is needed to ensure cleaner production process and substantial changes in firm's production practices. In this regard,

process eco-innovation is categorized by two groups including clean technologies and end-of-pipe (EOP) technologies. End-of-pipe (EOP) technologies are mechanisms or plants added at the end of the production process aiming to transform primary emissions of the production process into substance easier to handle without influencing the production process significantly. While cleaner technologies require a reduction of total pollution and waste in the whole stages of production process. The distinction between these two process eco-innovation types can also be explained by the level of innovation in the production process, as EOP is more dependent on incremental innovation, clean technologies can enhance the production efficiency and firm's productivity by employing radical innovations (Del Rio 2005, 22).

Use of clean technologies in the production process contributes significantly to the aim of mitigating environmental waste and pollutant levels of manufacturing firms. (Maldonado-Guzman et al,2020) In addition, process eco-innovations often require additional investments for enhancing the eco-efficiency, and cost-savings through better use of the materials and energy are among most important motivations for process eco-innovations inside a firm. (Rennings 2000, 320). In fact, the main motives for practicing eco-innovations in production processes could not be environmental enhancement exclusively. (Cleff & Renning 1999; Triguero et al. 2013) Moreover, technological capabilities and managerial competences (micro level) are relevant to process eco-innovation enhancement (Triguero et al. 2013, 27), and literature on this topic suggest that only the process eco-innovations related to material and energy are relevant to firm's absorptive capacity and networking (micro level). (Horbach et al. 2012, 117) Process eco-innovation can also be related to comply with production regulations set by governments. (Green et al. 1999,1047)

3.3.4.3 Organizational eco-innovation

Organizational eco-innovation can be defined as implementing a new organizational strategy in the firm's business operations, organizational structure, aiming at distributing responsibilities inside workplace and improving decision-making cooperation amongst employees. (Triguero et al. 2013, 27) According to a study by Garcia-Quevedo et al. (2019,1437) organizational innovations are defined as "vehicles of corporate environmental self-regulation that facilitate the introduction of significantly different

organizational structures, corporate environmental strategies, and new management methods."

A good example of organizational eco-innovation can be environmental management systems which are set of processes and practices utilized as standard environmental protection policy tools. (Demirel et al. 2018,81) Environmental management systems make it possible for organizations to mitigate their environmental impacts and increase the efficiency of their practices. (Garcia-Quevedo et al.2019,1437)

Theory on organizational innovation argue that organizations mostly act in a same way when functioning under similar prevailing social structure and circumstances. (Meyer & Rowan 1977, 344) This may be due to the risk that if they do not abide the existing norms and values, they will lose legitimacy. (DiMaggio & Powell 1993) Therefore, how environmental performance is managed by organizations is a strategic issue and managers in firms are more responsible to be environmentally responsible. (Garcia-Quevedo et al.2019,1437)

3.3.5 Eco-innovation sectoral dynamics

Numerous evolutionary scholars have discovered that firms operating in the same industry sector may encounter some convergence in their innovation strategies and process, which leads to the emergence of sector-specific technological trajectories. (Faria & Andersen 2017, 838) Sectoral system of innovation and production could be defined as "a set of new and established products for specific uses and the set of agents carrying out market and non-market interactions for the creation, production and sales of those products." (Malerba 2002, 250)

In addition, industrial characteristics such as the market demand for green vis-à-vis grey products, intensity of the existing environmental regulations, consumer behaviour and environmental awareness varies in different industry sectors and these elements makes it possible to recognize sectoral eco-innovation patterns in different industries and motivates firms to retain resources to employ and develop green strategies. (Anderson & Faria 2015, 4) Accordingly, in terms of technological regime among firms of a same sector and industry, not only the sectoral system of eco-innovation in firms emphasize the technological intensity of the internal processes of the firm, but also the form of coordination between different actors that support it. (Galliano & Nadel 2015, 468)

Furthermore, the micro level drivers of eco-innovation are the fundamentals to convergence mechanism among firms of a same sector. (Faria & Anderson 2017; Nelson 1991) Additionally, firm's technological competences at micro level accumulates and ultimately shape the innovation development process at the industry sector level. (Oltra & Saint-Jeans 2009, 573) Firm's cognitive abilities are relevant to the opportunity recognition, and identifying possible risks related with each technology, (Barney 1991, 100; Nelson 1991, 63) and studies suggest that size of firm's patent portfolios is corelated with sectoral eco-innovations. (Faria & Andersons 2017,266) Moreover, for firms to implement eco-innovation practices, a combination of internal knowledge assets and external knowledge resources is required, and accordingly, the industrial structures and technological conditions specific to the firm's industry are crucial factors. (Galliano & Nadel 2015, 468)

At the firm level, the cumulative and coordinate nature of innovation, the path dependencies of firms, and the important role of their technological knowledge sources are important factors to determine innovation capacity. (Dosi 1988, 1164) In addition, studies posit that not only the innovation capacity is dependent on the existing technological knowledge, but it also has a significant role in firm's absorptive capacity. (Cohen & Levinthal 1990, 128) The notion of innovation is focused on the premise that a firm is part of a network between different stakeholders, and the interactions between different actors constitute the innovation processes inside a firm. (Galliano & Nadel 2015, 469) Therefore, beyond the encouraging effects of sectoral regulations, eco-innovation intensity inside a firm is significantly determined by the captured and utilized knowledge by firms, and by the sectoral conditions of innovation. Overall, firm's embeddedness in sectoral dynamics is highlighted by contribution of adapters in the sector to which the firm belongs to, regulatory practices, diffusion of knowledge spill overs, which emphasizes the significance of the interaction between regulatory policies and knowledge development. (Wagner & Llerena 2011, 751) In case of cooperation structures and knowledge development at firm- level mechanisms, each sector has its own specificities. For instance, in the case of consumer goods companies, firms intend to innovate in response to the existing regulations, rather than in anticipation of future regulations. (Galliano & Nadel 2015, 488)

3.3.6 Managing eco-innovation

According to literature, firms who value increasing or stable market share and are more proactive to the competitiveness in the market, are more pursuing eco-innovation in their business strategies. (Cleff & Renning 1999,192) Additionally, market demand for green products can encourage firms to adapt and develop more eco-innovation practices in their products or services. (Kammerer 2009, 2285)

Based on literature, management eco-innovation refers to the management methods and process that help to reduce the negative impacts on the environment. As well as improving working conditions and workers well-being. (Triguero et al., 2013; Klewitz and Hansen, 2014; Roscoe et al., 2016). (Maldonado-Guzman et al,2020)

We focus on product eco-innovation (also eco-product innovation) and process eco-innovation (also eco-process innovation), as they are widely adopted by firms to reduce negative environmental impact through making technological changes. (Huang and Li, 2017; OECD, 2005), and they are the most repetitive eco-innovation terms in the literature.

Collaborative innovation requires fluent knowledge adaption and application across firms borders. (Crossan & Inkpen 1995, 70) In this regard, two distinct mechanisms are posited to play an important role in firm's success in knowledge sharing and collaborative innovation between rivals, including absorptive capacity and appropriability regime. (Ritala & Hurmelinna-Laukkanen 2013,155) Absorptive capacity relates to the extend in which a firm can acquire and utilizing knowledge resources available outside the firm. (Cohen & Levinthal 1990,131) Additionally, firms searching for knowledge in coopetition, need to protect their knowledge assets, and the strength related to knowledge protection is the strength of appropriability regime. (Hurmelinna-Laukkanen & Puumalainen 2007,155)

Firms interested in pursuing incremental developments in coopetition, should consider securing the firm's specific core knowledge within the firm's own boundaries alongside seeking to exchange knowledge to stay competitive and create value in the market. On the other hand, when a firm is pursuing radical innovation in competition with its rivals, the firm's focus is on protecting its prevailing core intellectual assets and emerging novel innovations and novel opportunities in the market. (Ritala & Hurmelinna-Laukkanen 2013, 154)

As a topic of interest in scientific and management literature over the past recent years, innovation management has become increasingly important. (Eveleens, 2010) The

reason for this interest is likely to be the realization that innovation is a key importance for the survival of an organization. No matter if it's a business that needs to compete against its competitors or a public organization that needs to improve its services. (Kaplan et al, 1992) Innovation is defined as something new that is being realized with (hopefully) added value. (Jacobs et al, 2008) Innovation management is relatively young in its literature, which has been a topic of research for about half a century now. Eco-innovation is type of an innovation that improves the environment. The concept of Eco-innovation is still a young area of research. However, it has been an area of increasing concern for policy makers, academics, and practitioners (Diaz-Garcia et al, 2015). Based on several literature, different terms and expressions are used which lead to the same approach as eco-innovation, like sustainable innovation, environmental innovation, green innovation. An eco-innovation is a new product, service, or technology that has a positive impact on the environment. The Organization for Economic Co-operation and Development (OECD) defines eco-innovation as "the development of products (goods and services), processes, marketing methods, organizational structure, and new or improved institutional arrangements, which, intentionally or not, contribute to a reduction of environmental impact in comparison with alternative practices" (OECD, 2009, p. 2).

Innovation in green products is a key factor to achieve increased growth rates for companies, as well as a better quality of life for society (Dangelico et al, 2010). Literature on eco-innovation typically focuses on identifying the drivers and barriers to the adoption of eco-innovation in various industries, as well as the economic and environmental benefits of such innovations. Research in this area has shown that there are several factors that can influence the adoption of eco-innovation, including government policies and regulations, consumer demand, and the availability of financial and technical resources. However, there are also barriers to the adoption of eco-innovation, including a lack of knowledge and understanding about the benefits of such innovations, high upfront costs, and a lack of standardization and regulations. To overcome these barriers, researchers have recommended a variety of policy and market-based solutions, such as financial incentives for eco-innovation, improved access to information and resources, and the creation of industry standards and regulations.

4 Discussion

In this chapter, the author delves into the findings of the systematic literature review conducted on the role of eco-innovation on market shaping strategies. First, the author reviews factors that drive eco-innovation adaption in firms. Second, factors that represent the employment of market shaping strategies in organizational structure are presented. Finally, the last section analyses the impacts of eco-innovation drivers on firms implementing market shaping strategies. This chapter's primary goal is to provide a theoretical framework and to offer insight into the body of knowledge on the role of eco-innovation on market shaping strategies. To reach this purpose, the most significant findings in the literature are presented to provide further understanding and clarify on the topic.

4.1 Mapping the existing knowledge in research on eco-innovation and market shaping

This section will thoroughly explore the most significant findings and themes in research on eco-innovation and market shaping strategies. By discovering and stating these findings, the researcher can better understand the key factors dominating the relationship between eco-innovation and market shaping strategies. There are some commonalities and complementary roles between different themes. As for example, an external impulse from macro-level authorities could boost micro-level eco-innovation adaption and consequently, market shaping strategies implementations. The author has classified the key findings of the research into two themes. First, different drivers of eco-innovation practices, and second, different drivers of market shaping strategies, and finally, explores those drivers of eco-innovation that can boost implementing market shaping strategies in firms.

4.1.1 Multi-level drivers of eco-innovation

Eco-innovation is a complex phenomenon driven by a combination of several factors at different levels. By understanding these drivers, firms can easier manage their decision-making process regarding developing and implementing sustainable practices. Figure 6. below provides insights into how various factors influence firms' decisions to adapt eco-innovation practices. In this figure, eco-innovation drivers are categorized in three levels.

First, macro-level drivers, which include regulations and governmental policies. Second, meso-level drivers, which include market demands and pressure groups influencing firms towards adapting green strategies. Third, micro level drivers, which encompass firm's strategies regarding employing and successfully implementing eco-innovations which helps to improve eco-innovations practices and gain a competitive advantage (Diaz-Garcia et al. 2015; Horbach et al.2012; Johnson & Lybecker 2012; Pereira & Vence 2012; Yalabik & Fairchild 2011; Porter & Van Der Linde 1995). In addition, drivers of eco-innovation at each level, not only operate independently but also interact with and impact one another. (Klewitz et al. 2012, 446)

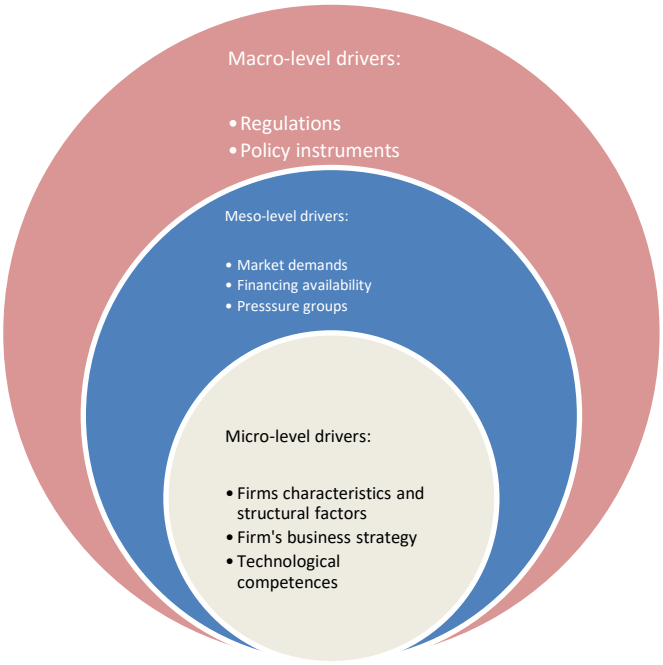

Figure 6 Multi-level frameworks of eco-innovation drivers (Adapted from Diaz-Garcia et al.2015, 11)

According to the figure 6 above, environmental regulations and policies can stimulate eco-innovations, leading to reduction in pollution levels and competitive advantages for firms. (Porter & Van Der Linde 1995, 99-100) Furthermore, producer responsibility tools including tax subsidy systems, strict environmental regulations and recycling fees can help to encourage eco-innovation implementations in firms. Research results indicate that tax subsidy systems and environmental regulations can result in radical innovations and noticeable changes in the market. (Brouillat & Oltra 2012, 236)

Furthermore, changes in the market demands can create opportunities for eco-innovation developments. (Horbach et al. 2012, 115) In this regard, customers and suppliers play a crucial role in driving eco-innovation within firms. (Wu 2013, 539) In addition, financing availability has a significant role in driving eco-innovation improvements inside firms particularly for SMEs, as public funding and attracting external finance sources can be more challenging for smaller businesses. (Johnson & Lybecker 2012, 1-10) Moreover, pressure groups including environmental NGOs encourage firms to adapt eco-innovation practices. (Guoyou et al. 2013, 1-3)

Additionally, firms' characteristics may impact the adoption of eco-innovation inside firms. As for example some studies suggest that firms' size can drive eco-innovation implementations and larger firms have more capacity for eco-innovation adaptions. Similarly, younger firms may have more advantages in responding to environmental challenges due to their flexibility. Factors driving eco-innovations in different levels are thoroughly discussed in section 3.3.3.

4.1.2 Drivers of market shaping strategies

Literature on market shaping demonstrate that consumers play a significant role in actively participating in market shaping. (Kjeldgaard et al.2017, 51) Additionally, market shaping is a result of many interacting forces including technological innovations, competitive pressures, and struggles among opposing groups of consumers and producers. (Giesler, 2008, 1403) Moreover, firms' dynamic capabilities enable them to shape markets to their advantage. (Werner et al.2022,13) Figure 7 below describes different drivers of market shaping strategies.

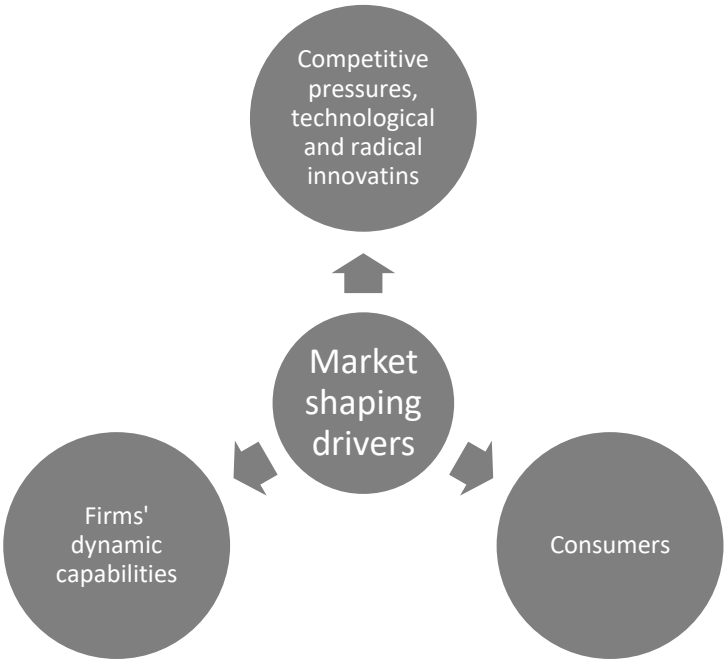

Figure 7 Drivers of market shaping strategies

According to Figure 7, active consumers in the market play a significant role in market shaping process. This role can range from being an active market user to being an active market shaper (Kjeldgaard et al. 2017, 51) and might be intentional or unintentional. (Giesler 2008, 1403)

Furthermore, technological advancements and radical innovations may disrupt industries and create totally new markets from scratch. (Giesler 2008) As radical innovations represent major departures from the existing capabilities in the firms, they aim to create new markets with different configurations compared to the previous market. (Ritala & Hurmelinna-Laukkanen 2013, 158). Therefore, when a firm is pursuing radical innovation, the firm's focus is on expanding its current knowledge and emerging novel innovations and novel opportunities in the market. (Ritala & Hurmelinna-Laukkanen 2013, 154)

Moreover, firms leverage dynamic capabilities to adapt and influence markets. In other words, those dynamic capabilities which enable firms to shape the market to their favours improve the interaction between firms and the market (Werner et al. 2022, 13). In fact, firms' dynamic capabilities address the ability of firms to acquire new knowledge resources to generate products in interaction with other market actors (Eienhardt & Martin

2000, 1107) and to improve the value co-creation and to make sure the created or shaped market is considered as viable. (Peters et al. 2020, 1403)

Literature on market shaping identifies markets as complex exchange systems with the aim of value-creation which can be influenced by different actors. (Cava et al,2021) Considering that markets are complex and adaptive systems including a wide range of actors constantly making changes to the market, the practices of these different actors intentionally or unintentionally shape the market. (Sprong et al. 2021, 451) The author thoroughly discusses the impact of the above factors on market shaping in section 3.2.2.

4.2 Key drivers of eco-innovation influencing market shaping strategies

This section will illustrate the relationships between eco-innovation drivers and drivers of market shaping strategies. By understanding the relationships between the drivers of these two topics, we can gain a more comprehensive understanding of the impact of eco-innovation on market shaping strategies.

4.2.1 The role of market demands in market shaping strategies

Demand factors that represent the market demand for green innovation and include the environmental awareness of consumers in the market, influence adapting eco-innovation practices. (Hou & Guo 2023, 15631). Changes in market trends can lead to opportunities for developing eco-innovations in the market, and customers and suppliers have a crucial role in improving the development of this type of innovation in firms. (Wu 2013,539) In addition, market shaping is defined as a proactive concept in understanding and satisfying consumers' latent needs (Narver et al. 2004, 336) In other words, consumers' growing environmental awareness encourages firms to adapt eco-innovations. This allows firms to react to the changing market environment and shape the market. (Hou & Guo 2023; Narver et al. 2004)

4.2.2 The role of firm's characteristics and competences in market shaping strategies

Implementing eco-innovation in a firm's supply chain processes provides firms with a source of competitive advantage in the marketplace (Jacobson 1992,782). Accordingly, market shaping is an array of purposeful activities a firm employs to improve its competitive advantage in the market. (Gavetti et al, 2017) In this regard, eco-innovation adaptions help firms to achieve an improved image in the market. (Triguero et al. 2013,

26; Pujari 2006, 78) This improved image promotes reputation and enables firms to differentiate their products and gain competitive advantages. (Renning 2000, 320) Furthermore, for firms to implement green supply chain processes, integrations with customers and suppliers are needed to develop green products and processes. (Mishra & Shah 2009,329) Therefore, firms would be more successful in developing innovation if they involve customers in the ideation process. (Sambamurthy et al.2003, 240). Therefore, networking and accessing external knowledge sources like collaboration with universities, research institutes and agencies are highly relevant to product eco-innovation implementation. (Triguero et al. 2013, 26)

4.2.3 The role of environmental policies in market shaping strategies

Environmental policies and regulations can also affect product eco-innovations and are important drivers of firm's eco-innovation adaption. (Horbach 2008, 166) Moreover, firms react to eco-policy demand interventions and policy makers can improve growth and move the society towards sustainability. (Diaz-Garcia et al. 2015, 13) Overall, environmental policies are a powerful tool for creating eco-innovation incentives. (Brouillat &Oltra 2012, 236) Environmental regulations might be more effective on development of eco-innovation processes that help reducing air, water, or noise emissions, avoiding exposure to hazardous substances in production, and improve recyclability of products. (Horbach et al.2012, 112) Setting these clear environmental targets for improving the quality of air, water and other resources provides a roadmap for innovation. (OECD 2011)

4.2.4 Theoretical framework

Figure 8 below depicts the role of eco-innovation in market shaping strategies. All the relationships between different drivers of eco-innovation and market shaping strategies are explained in the above sections.

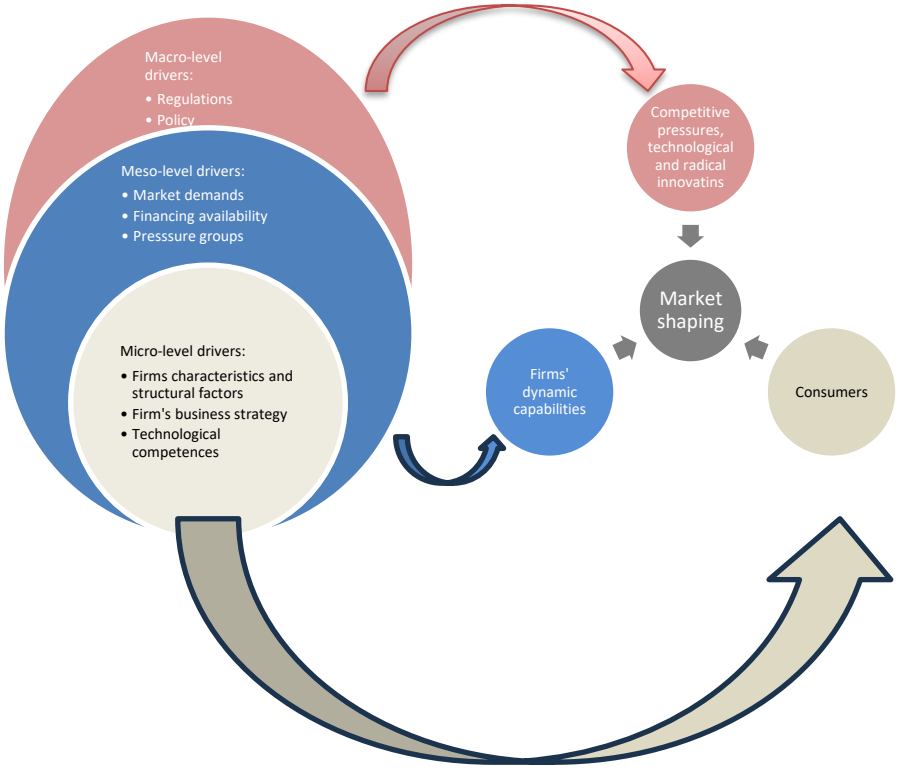

Figure 8 Role of eco-innovations in market shaping strategies

As market shaping strategies is an inclusive term for market widening and market innovation strategies, market widening, and market innovations are grounded in a less inclusive extent than market shaping strategies. Therefore, eco-innovations have the same contributing role in these two sub-strategies of market shaping. Therefore, the two sub-research questions of "What is the role of eco-innovation in market widening strategies?" and "What is the role of eco-innovation in market shaping strategies?" are answered.

Overall, eco-innovations play a crucial role in market shaping by laying the grounds for firms to adapt to changing consumer preferences and environmental regulations and offering them the potential to lead the market translation towards a more sustainable future.

5 Conclusion

To recall, the researcher has conducted extensive research on the role of eco-innovation on market shaping strategies. The main research question was “What is the role of eco-innovation in market shaping strategies?” The researcher also explored two research sub-questions that were outlined in section 1.3. After conducting a systematic literature review the researcher identified several drivers of eco-innovation practices impacting market shaping strategies. Moreover, in section 5.2, the researcher provided valuable insights into managing eco-innovation for market shapers. The next section will describe theoretical contribution.

5.1 Theoretical contribution

This thesis contributes to the academic discussion around the role of eco-innovation in market shaping strategies and brings eco-innovation and market shaping together by highlighting how eco-innovation acts as a driver for market shaping. In this section, three reasons are provided to indicate why this thesis makes a substantial contribution to the following literature.

First, it addresses the research gaps discussed in section 1.2. Despite the importance of eco-innovations as a factor that moves markets towards sustainability, studies related to eco-innovation are still preliminary and research on this field of study is still in its infancy. (Klewitz & Hansen, 2013,60; Colombo et al. 2019,654) Additionally, according to studies, innovations can accelerate market shaping actions, as market shaping actions rely on complementary technologies as a tool to create value in the market. However, particular attention has not been paid to the role of technology and innovation concept in the field of market shaping (Ben-Slimane & Fessi 2023 ,525; Kaartemo &Nystrom 2021, 458). Therefore, this scarcity of studies creates a significant knowledge gap that is bridged in this master thesis. Moreover, while prior studies mainly focus on the role of innovation on market shaping, more research is demanded on the role of specific types of innovation, including eco-innovation, on market shaping strategies. (Ben-Slimane & Fessi 2023 ,525) Therefore, this thesis intends to provide additional knowledge to the scientific discussion on eco-innovation and market shaping concepts. The findings of the systematic literature review suggest that environmental regulations, pressure groups, market demands, firm’s business strategy and characteristics, and technological competences can affect firm’s decision of employing market shaping strategies.

Second, depending on the theoretical stance, some eco-innovation drivers are given more emphasize than others. (Diaz-Garcia et al. 2015, 12) For example, environmental economics literature relies on the role of governmental regulations and policies, while innovation literature emphasizes the importance of firm's capabilities and market demands and requirements. However, this study takes a comprehensive approach to eco-innovation drivers and examines the interplay between regulatory, technological, and market forces. It investigates how these various drivers interact and influence the development of eco-innovations, ultimately seeking to identify the link between eco-innovation drivers and the factors that shape markets towards sustainability (Figure 8). The theoretical framework in figure 8 is important as it enhances the understanding of the connections between the concepts and makes an important contribution to academia to further understand the factors that drive the creation and adaption of sustainable solutions allowing markets to move towards sustainability.

Third, while existing research has explored the drivers of eco-innovation, and the predominant focus in the literature is on how eco-innovation drives market shaping, the potential of research on market shaping strategies influencing eco-innovation implementation challenges the existing knowledge on this topic. This topic is important as the recognition of the influence of market shaping strategies on eco-innovation helps policymakers and businesses to stimulate eco-innovations across multiple levels (macro, meso, micro), and this can lead to a more accelerated transition towards sustainable practices.

5.2 Managerial implications

This section will describe how key issues can be managed to help firms further adapt eco-innovations in their business strategies. There are several factors affecting the firm's decision of employing eco-innovation practices inside firm's characteristics. (Triguero et al,2013,32)

First, entrepreneurs who value growing or stable market share, report a higher likelihood of adapting eco-innovation practices. (Cleff & Rennings, 1999,194) These entrepreneurs view environmental product innovations as a response for competitiveness and the strategic market behaviour of firms. (Triguero et al,2013,29)

Managers should develop their product eco-innovations to improve their image in the market. This improved image promotes reputation and enables firms to differentiate

their products and gain competitive advantages. (Renning 2000, 320) In order for companies to define green strategies, they need to promote eco-innovation practices and design advanced production systems compatible with the policies of sustainable and environmental developments. (Gouyou et al. 2013,779). Therefore, eco-innovation practices become a prerequisite to solve problems, obtain a competitive advantage, and move the market towards sustainability. (Cui & Wang 2021,481)

Second, market demand is also relevant to firms' adaption of eco-innovation practices. Firms valuing the market demand for green products have proven to develop more eco-innovative products. The marketing literature emphasizes customer benefits, such as reduced energy costs, as a critical factor for green market demand. (Kammerer, 2009,2286)

Managers should pay close attention to market orientation and stakeholder engagement by understanding and satisfying customers' latent needs through proactive market orientations and leading customers in their satisfaction. (Narver et al. 2004,336) Understanding the demands of customers who value green products is crucial to improve value proposition. In this regard, conducting market research can help identifying different segments of the market and develop targeted value propositions.

Third, a successful collaboration with research institutes and universities significantly encourages eco-innovation practices in organizations. (Triguero et al,2013,29)

Managers need to put open innovation activities and collaboration with research institutes and universities at their top priority if they aim to enhance their networking and their access to valuable knowledge and resources. In this regard, research and development units must proactively seek out for potential partners to improve their knowledge on sustainability and promote sustainable practices.

Fourth, as mentioned earlier, existing environmental legislations and standards are more relevant to develop eco-innovation practices compared to the future standards. (Kammerer, 2009,2286) (Triguero et al,2013,29)

Managers should proactively monitor existing and upcoming environmental regulations and sustainability policies to identify potential opportunities related to promoting eco-innovation practices. Furthermore, early adaption of regulations can provide a competitive advantage for the firms and strengthen firm's reputation as an eco-innovative compared to the rivals.

Figure 9 below depicts the factors influencing managing eco-innovations in firms.

Figure 9 Managing eco-innovation for market shaping strategies

In addition, the environment literature identifies four critical categories of stakeholders that might affect manufacturing companies to employ eco-innovation practices. First, regulatory stakeholders, including governments which make environmental regulations. Regulatory stakeholders other than governments, such as informal networks, firm's competitors, etc., may have the power to influence governments to set environmental regulations. Second, organizational stakeholders which include customers, suppliers, employees, and the shareholders. Third, community stakeholders which include community groups and environmental organization, have the power to shape the public opinion in favour or against a company. And finally, the media can influence society's perception of a company. The information that the media convey about a company influence how a company is perceived. (Henriques & Sadorsky, 1999)

Furthermore, legislations and policies set by governments can affect firms' activities and obligate them to maintain the environment from the negative impacts of their processes. Based on a study, stakeholder's green pressures on firms, mitigates their negative impacts on the environment and obligates them to respond to environmental challenges (Nguyen et al,2022)

5.3 Limitations and future research direction

Some limitations of the thesis can be observed despite the theoretical and practical contribution of the study. First, the researcher selected Google scholars and Web of Science (WoS) as database for searching through articles. However, this exclusive use of these two databases might have caused absence of some important materials in other prevailing databases. Second, this study's sample of reviewed articles is limited. This limitation might have impeded the researcher from finding more detailed insights into the role of eco-innovation in market shaping practices. Third, utilizing qualitative methodology may lead to some extensions of objectivity and the potential for generalizations. (Mansilla-Obando et al. 2023, 13) As this study utilized qualitative analysis for analysing data, there is a possibility of bias affecting the interpretation of the literature and developing themes. Lastly, during the research process the author realized there is research potential for identifying the role of market shaping in eco-innovation practices. This study proved a multi-level framework for driving eco-innovation practices. Future research directions could be how different market shaping strategies can contribute to the drivers of eco-innovation in each level.

Overall, the limitations mentioned above are not burdens for research process. Instead, they are gateways to future research directions, and they should be considered as guide points to direct the future research path. By addressing these limitations and pursuing the future research directions, scholars can gain a deeper understanding of the complex interplay between market-shaping strategies and eco-innovation practices. Filling this knowledge gap can empower firms to develop effective eco-innovation practices and guides regulatory authorities and policy makers to develop a market environment that boosts sustainable business practices and market shaping strategies.

6 Summary

In this master thesis study, the researcher delved in the role of eco-innovation in market shaping strategies and identified that eco-innovation practices influence market shaping strategies. This study explores how promoting eco-innovation practices in firms help to shape markets towards sustainability. Considering this, the main research question of this thesis is: *"What is the role of eco-innovation in market shaping strategies?"* To answer the research question, a systematic literature review was conducted to examine the relevant articles.

In a qualitative research design, multi-level drivers of eco-innovation practices inside firms, drivers of market shaping strategies and how eco-innovation drivers in different levels can boost market shaping strategies are studied. For data collection, the author undertook a systematic literature review that includes papers from several research methodologies including mixed, qualitative, and quantitative. In addition, the author searched for the relevant articles through Web of Science (WoS) and Google Scholar databases and found 980 relevant articles. Among which a sample of 172 articles were chosen by PRISMA guidelines inclusion and exclusion criteria. These criteria included journal articles, books and chapters in English from related fields including management, business and economics, and excluded documents such as conference papers and reports. To ensure the validity of the review process, several steps including defining the research problem, creating and validating the review protocol, conducting a through literature search, screening for inclusion criteria, and carefully analysing and synthesizing the collected data were conducted. Furthermore, specific assessment criteria for description and evaluation of the research process were utilized to increase the transparency of the study. Finally, a qualitative content analysis by Creswell 2009 was conducted to analyse the collected data.

Through reviewing eco-innovation literature, three levels for drivers of eco-innovation were identified which have impacts on market shaping strategies. First, this research identifies that consumer environmental awareness and market demand for green products are key drivers for firms to adapt eco-innovations. Therefore, implementing eco-innovation practices allows firms to adapt to the changing environment in the market and potentially shaping the market towards sustainability. Second, eco-innovation can lead to a competitive advantage through improved brand image and product differentiation. In this regard, the successful implementation of eco-innovation often involves collaboration

with external knowledge sources including universities, research institutes, research agencies etc. Therefore, networking and accessing external knowledge sources are highly important to product eco-innovation implementation. This allows firms to react to the changing market dynamics and move towards market growth. Lastly, aligning with existing environmental policies and regulations is another important driver of firm's eco-innovation adaption.

This research contributes to theory as well as it has practical implications. Theoretical contributions are findings that emphasize the importance of eco-innovation for firms to navigate market dynamics and shape market strategies. By understanding different levels of eco-innovation drivers, firms can develop and implement effective strategies to leverage eco-innovation for market shaping and achieve sustainability. Furthermore, this thesis offers valuable insights both in theory and practice. Theoretically, the research highlights the relationship between eco-innovation and market shaping strategies and introduces multi-level drivers of eco-innovations that can encourage further development of effective market shaping strategies. On the practical side, the implications of the findings provide valuable recommendations for organizations and businesses and give them insights into moving towards sustainable markets.

References

Abernathy, W.J. - Clark, K.B. (1985) Innovation: Mapping the winds of creative destruction. *Research Policy*, Vol.14(1), 3–22.

Agarwal, R. – Bayus, B.L. (2022) The market evolution and sales take-off of product innovations. *Management Science*, Vol.48(8), 1024-1041.

Aksu, B. – Akman, G. (2023) How eco-innovation determinants and eco-innovation strategy influences sustainability performance of SMEs? Mediating role of eco-innovation strategy. *Journal of Knowledge Economy*.

Al-khatib, A.W. – Al-ghanem, E.M. (2022) Radical innovation, incremental innovation, and competitive advantage, the moderating role of technological intensity: evidence from the manufacturing sector in Jordan. *European Business Review*. Vol.34(3), 344-369.

Allenby, B. – Fink, J. (2005) Towards inherently secure and resilient societies. *Science (American Association for the Advancement of Science)*, Vol.309 (5737), 1034-1036.

Altigan, Y.- Demirtas, K.O.- Simsek, K.D. (2015) Studies of equity returns in emerging markets: A literature review. *Emerging Markets Finance & Trades*, Vol.51 (4), 757-773.

Andersen, M. – Faria, L. (2015) Eco-innovation dynamics and green economic change: the role of sectoral-specific patterns. *R&D Management Conference*.1-9.

Aragon-Correa, J.A. – Hurtado-Torres, N. Sharma, S. – Garcia-Morales, V.J. (2008) Environmental strategy and performance in small firms: A resource-based perspective. *Journal of Environmental Management*. Vol.86(1), 88-103.

Azimont, F. – Araujo, L. (2007) Category reviews as market-shaping events. *Industrial Marketing Management*. Vol.36 (7), 849-860.

Baker, J.J. – Nenonen, S. (2020) Collaborating to shape markets: emergent collective market work. *Industrial Marketing Management*, Vol.85, 240-253.

Baker,J.J.- Storbacka,K.-Brodie,R.J. (2019) markets changing, changing markets: institutional work as market shaping. *Marketing Theory*. Vol.19, 301-328.

Barile,S.- Saviano,M.- Polese,F.- Nauta,P.D. (2012) Reflections on service systems boundaries: a viable systems perspectives. The case of the London Borough of Sut-ton, *European Management Journal*. Vol.30(5), 451-465.

Barney, J. (1991) Firm resources and sustained competitive advantages. *Journal of Management*. Vol.17 (1), 99-120.

Beckert,J. (2010) How do fields change? The interrelations of institutions, networks, and cognition in the dynamics of markets. *Organization Studies*, Vol.31(5), 605-627.

Ben-Slimane, K.- Fessi, L. (2023) Market shaping through controversial innovation. *International Journal of Market Research*. Vol.65 (5), 524-531.

Beninger, S. – Francis, J.N.P. (2021) Collective market shaping by competitors and its contribution to market resilience. *Journal of Business Research*. Vol.122, 293-303.

Berggren,C. – Magnusson,T. – Sushandoyo, D. (2015) Transition pathways revisited: Established firms as multi-level actors in the heavy vehicle industry. *Research Policy.* Vol.44(5), 1017-1028.

Bleda, M. – Valente, M. (2009) Graded eco-labels: A demand-oriented approach to reduce pollution. *Technological Forecasting & Social Change*, Vol.76 (4), 512-524.

Blum-Kusterer, M. Hussain, S.S. (2001) Innovation and corporate sustainability: An investigation into the process of change in the pharmaceuticals industry. *Business Strategy and The Environment*. Vol.10(5), 300-316.

Bonzanini Bossle, M. – Dutra de Barcellos, M. – Vieira, Luciana Marques, Sauvee, L. (2016) The drivers for adaption of eco-innovation. *Journal of Cleaner Production.* Vol.113, 861-872.

Brereton,P.- Kitchenham,B.A. – Budgen.D.- Turner,M- Khalil,M. (2007) Lessons from applying the systematic literature review process within the software engineering domain. *The Journal of System & Software*, Vol.80(4), 571-583.

Brodie,R. Nenonen, S. – Storbacka, k. (2020) Market shaping and systematic innovation. *The Journal of Business & Industrial Marketing*. Vol.35 (9), 1385-1387.

Brouillat, E. – Oltra, V. (2012) Extended producer responsibility instruments and innovation in eco-design: An exploration through a simulation model. *Ecological Economics*. Vol.83(1), 236-245.

Burr, T.C. (2014) Market-widening: Shaping total market demand for French and American bicycles circa 1890. *Market Theory*, Vol.14(1), 19-34.

Cainelli, G.- Mazzanti, M. – Zoboli, R. (2011) Environmental innovations, complementarity, and local/global cooperation: evidence from North-East Italian industry. *International Journal of Technology*, *Policy & Management.*Vol.11, 328-368.

Carrillo-Hermosilla, J. – Rio Gonzalez, P.D. – Konnola, T. (2009) *Eco-innovation: when sustainability and competitiveness shake hands.* Macmillan.

Carrillo-Hermosilla, J. – Del Rio, P. (2010) Diversity of eco-innovations: Reflections from selected case studies. *Journal of Cleaner Production*, Vol.18, 1073-1083.

Chen, Y.S. - Chang, C.H. – Lin, Y.H (2014) The determinants of green radical and incremental innovation performance: green shared vision, green absorptive capacity, and green organizational ambidexterity. *Sustainability (Basel, Switzerland),* Vol.6 (11), 7787-7806.

Chia, R. – Holt, R. (2006) Strategy as practical coping: A Heideggerian perspective. *Organization Studies*. Vol.27 (5), 635-655.

Chimenti, G. (2020) Conceptual controversies at the boundaries between markets: the case of ridesharing. *Consumption, Markets & Culture*. Vol.23 (2), 130-153.

Christensen, Clayton. M. – Raynor, Michael. E. (2003) *The innovator's solution*. Optimize, Manhasset.

Christensen, Clayton. M. – Raynor, Michael. E. – McDonald, R. (2015) What is disruptive innovation? Twenty years after the introduction of the theory, we revisit what it does- and doesn't- explain. *Harvard Business Review*, Vol.93(12), 44.

Christensen,C.M. – Anthony, S.D.- Berstll, G. – Nitterhouse, D. (2007) Finding the right job for your product. *MIT Sloan Management Review*. Vol.48 (3), 38-92.

Cleff, T.-Rennings,K. (1999) Determinants of environment product and process innovation. *European Environment*, Vol.9, 191-201.

Cohen, W.M. – Levinthal,D.A. (1990) Absorptive capacity: A new perspective on learning and innovation, *Administrative Science Quarterly*, Vol.35(1), 128-152.

Colombo, L.A- Pansera, M.- Owen,R. (2019) The discourse of eco-innovation in the European Union: An analysis of the Eco-Innovation Action Plan and Horizon 2020. *Journal of Cleaner Production*. Vol 214, 653-665.

Cova, B. – Ivens, B.S. – Spencer, R. (2021) The ins and outs of market shaping: Exclusion as a dark side? *Journal of Business Research*, Vol.124, 483-493.

Coviello,N.E. – Joseph, R.M. (2012) Creating major innovations with customers: Insights from small and young technology firms. *Journal of Marketing*. Vol.76 (6), 87-104.

Creswell, John W. (2009) *Research design: qualitative, quantitative, and mixed methods approaches.* Sage Publication, USA.

Crossan,M.M. – Inkpen, A.C. (1995) The subtle art of learning through alliances. *Ivy Business Journal,* Vol.60(2), 68-78.

Cui,R. – Wang, J. (2021) Shaping sustainable development: External environmental pressure, exploratory green learning, and radical green innovation. *Corporate Social-Responsibility and Environmental Management.* Vol.29 (3), 481-491.

Dai, J.- Cantor,D.E.- Montabon,F.L.(2015) How environmental management competitive pressure affects a focal firm's environmental innovation activities: A green supply chain perspective. *Journal of Business Logistics*. Vol.36(3), 242-259.

D'agostini, M. – Tondolo, V.A.G.- Camargo, M.E.- Dullius, A.I.S- Tondolo, R.R.P-Russo, S.L. (2017) Relationship between sustainable operations practices and performance: a meta-analysis. *International Journal of Productivity and Performance Management.* Vol.66(8), 1020-1042.

Darnall, N. – Henriques, I. – Sadorsky, P. (2008) Do environmental management systems improve business performance in an international setting? *Journal of International Management*, Vol.14 (4), 364-376.

Del Rio, P. (2005) Analysing the factors influencing clean technology adaption: A study of the Spanish pulp and paper industry. *Business Strategy and Environment*. Vol.14 (1), 20-37.

Demirel, P. and Kesidou, E. (2011), “Stimulating different types of eco-innovation in the UK: government policies and firm motivations”. *Ecological Economics*, Vol. 70(8), 1546-1557.

Demirel, P. – Latridis, K. – Kesidou, E. (2018) The impact of regulatory complexity upon self-regulation: Evidence from the adaption and certification of environmental management systems. *Journal of Environmental Management*, Vol.207, 80-91.

Denyer, David – Tranfield, David (2009) Producing a systematic review. In D. A. Buchanan & A. Bryman (Eds.), The Sage handbook of organizational research methods. Sage Publications Ltd. (671–689).

Desarbo, W.S. – Anthony Di Benedetto, C. – Song, M. Sinha, I. (2005) Revisiting the miles and snow strategic framework: uncovering interrelationships between strategic types, capabilities, environmental uncertainty, and firm performance. *Strategic Management Journal*. Vol.26(1), 47-74.

Diaz-Garcia, C.- Gonzalez-Moreno, A.- Saez-Martinez, F.J. (2015) Eco-innovation: insights from a literature review. *Innovation: Management, Policy & Practice.*Vol.17, 6-23.

Diaz Ruiz, C.A. – Baker, J.J – Mason, K. – Tierney, K. (2020) Market-scanning and market-shaping: why are firms blindsided by market-shaping acts? *The Journal of Business & Industrial Marketing.* Vol.35(9), 1389-1401.

Diaz Ruiz, C. – Makkar, M. (2021) Market bifurcations in board sports: How consumers shape markets through boundary work. *Journal of Business Research.* Vol.122, 38-50.

DiMaggio, P.J. – Powell, W.W. (1983) The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review.* Vol.48(2),147-160.

Doran, J. – Ryan, G. (2012) Regulation and firm perception, Eco-innovation, and firm performance. *European Journal of Innovation Management*, Vol.15, 421-441.

Dosi, G. (1988) Sources, procedures, and microeconomic effects of innovation. *Journal of Economic Literature*, Vol.26 (3), 1120-1171.

Eiadat, Y. – Kelly, A. – Roche, F. Eyadat, H. (2008) Green and competitive? An empirical test of the mediating role of environmental innovation strategy. *Journal of World Business*, Vol.43, 131-145.

Eisenhardt, K.M. – Martin, J.A. (2000) Dynamic capabilities: what are they? *Strategic Management Journal.* Vol.21(10-11), 1105-1121.

Elkington,J. (1997) The triple bottom line for 21st century business. *Journal of Experimental Psychology.*

Eriksson, P. Kovalainnen (2008) Qualitative methods in business research: A practical guide to social research, Sage.

EU deal to end sale of new CO2 emitting cars by 2035. (2022) Zero emission vehicles: first “Fit for 55” deal will end sale of new CO2 emitting cars in Europe by 2035. Available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6462 (accessed December 2022).

European Commission (2007). Competitiveness and innovation framework program (2007-2013). Available at: http://ec.europa.eu/cip/ (accessed 10 March 2023)

Faria, L.G.D. – Andersen, M.M. (2017) Sectoral dynamics and technological convergence: an evolutionary analysis of eco-innovation in the automotive sector. *Industry and Innovation*. Vol.24 (8), 837-857.

Faria, L.G.D. - Andersen, M.M. (2017) Sectoral patterns versus firm-level heterogeneity – The dynamics of eco-innovation strategies in the automotive sector. *Technological Forecasting & Social Change*, Vol.117, 266-281.

Fisch, C. – Block,J. (2018) Six tips for your (systematic) literature review in business and management research. *Management Review Quarterly*. Vol.68 (2), 103-106.

Flaig,A., Kindström,D., Ottosson,M. Market-shaping strategies: A conceptual framework for generating market outcomes. *Industrial Marketing Management*. Vol.96, 254-266

Flaig,A., Kindström,D., Ottosson,M. (2021) Market-shaping phases- A qualitative meta-analysis conceptual framework. *AMS Review*, Vol.11 (3-4), 354-374.

Foss, N.J. – Saebi, T. (2017) Fifteen years of research on business model innovation: How far have we come, and where should we go? *Journal of Management,* Vol.43 (1), 200-227.

Foster, C. – Green, K. (2000) Greening the innovation process. *Business Strategy and The Environment,* Vol.9 (5), 287-303

Galliano, D. – Nadel, S. (2015) Firm's eco-innovation intensity and sectoral system of innovation: the case of French industry. *Industry & Innovation*, Vol.22 (6), 467-495.

Garcia-Quevedo, J. – Kesidou, E. – Martinez-Ros, E. (2019) Driving sectoral sustainability via the diffusion of organizational eco-innovations. *Business Strategy and the Environment*. Vol.29 (3), 1437-1447.

Gates, S. (2002) Review of methodology of quantitative reviews using meta-analysis ecology, *The Journal of Animal Ecology*, Vol.71(4), 547-557.

Gavetti, G., Helfat, C.E.- Marengo, L. (2017) Searching, shaping, and the quest for superior performance. *Strategy science*, Vol.2 (3), 194-209.

Geels, F.W. (2002) Technological transitions as evolutionary reconfiguration processes: a multi-level perspective and case-study. Research Policy, Vol.31(8), 1257-1274.

Geiger, S. – Finch, J. (2016) Promissories and pharmaceutical patents: agencing markets through public narratives. Consumption, Markets, and Culture, Vol.19 (1), 71-91.

Geiger, S. – Kjellberg, H. (2020) Market mash ups: The process of combinational market innovation. *Journal of Business Research*. Vol.124, 445-457.

Geiger,S. – Kjellberg,H. – Spencer, R. (2012) Shaping exchanges, building markets. Consumption, *Markets & Culture*. Vol.15 (2), 133-147.

Giesler,M. (2008) Conflict and compromise: drama in marketplace evolution. *The Journal of Consumer Research*. Vol.34(6), 739-753.

González-Moreno, A., Sáez-Martínez, F. J., & Díaz-García, C. (2013). Drivers of eco-innovation in the chemical industry. *Environmental Engineering and Management Journal*, Vol.12 (10), 2001– 2008.

Green, K. - McMeekin, A. – Irwin, A. (1994) Technological trajectories and R&D for environmental innovation in UK firms. Futures: The Journal of Policy, Planning and Futures Studies, Vol.26 (10), p. 1047-1059.

Guoyou, Qi. – Saixing, Z. – Chiming, T. Haitao, Y. – Hailiang, Z. (2013) Stakeholder's influence on corporate green innovation strategies: A case study of manufacturing firms in China. *Corporate Social-Responsibility & Environmental Management*. Vol.20 (1), 1-14.

Grunwald, A. (2011) On the roles of individuals as social drivers for eco-innovation. *Journal of Industrial Ecology,* Vol.15(5), 675-677.

Guoyou, Q., Saixing, Z., Chiming, T., Haitao, Y., & Hailiang, Z. (2013). Stakeholders' influence on corporate green innovation strategy: A case study of manufacturing firms in China. *Corporate Social Responsibility and Environmental Management,* Vol.20(1), 1–14.

Hacklin,Leena (2021) Dynamics of market shaping and its consequences. Thesis, 19.5.2021.

Hawa, J.- Baker,J.- Plewa, C.(2020) Composing markets: A framework of intentionality in market-shaping. *Journal of Business Research*, Vol.121, 47-57.

He, F., Miao, X., Wong, C.W. and Lee, S. (2018), "Contemporary corporate eco-innovation research: a systematic review", *Journal of Cleaner Production*, Vol. 174, 502-526.

Hellstrom,T. (2007) Dimensions of environmentally sustainable innovation: The structure of eco-innovation concepts. *Sustainable Development*. Vol.15(3), 148-159.

Henriques, I. – Sadorsky, P. (1999) The relationship between environmental commitment and managerial perceptions of stakeholder importance. *Academy of Management Journal*. Vol.42(1), 87-99.

Herlin H. – Pazirandeh A. (2012) Non-profit organizations shaping the market of supplies. *International Journal of Production Economics*, Vol.139 (2), 411-421.

Hildermeier, J. – Villareal,A. (2011) Shaping an emerging market for electric cars: How politics in France and Germany transforms the European automotive industry. *European Review of Industrial Economics and Policy*, Vol.3.

Hills, S.B. – Sarin, S. (2003) From market driven to market driving: An alternate paradigm for marketing in high technology industries. *Journal of Marketing Theory and Practice,* Vol.11, 13-24.

Hofer,C. – Cantor, D. – Dai,J. (2012) The competitive determinants of a firm's environmental management activities: Evidence from US manufacturing industries. *Journal of Operations Management*, Vol.30(1-2), 69-84.

Hou, P. – Guo, J. (2023) Exploring the demand-pull effect on green innovation and its spatial spillover effects: evidence from 261 Chinese prefecture-level cities. *Sustainability (Bael, Switzerland)*, Vol.15(21), 15631.

Horbach, J. (2008) Determinants of environmental innovation: New evidence from German panel data sources. *Research Policy,* Vol.37. 163-173.

Horbach, J. (2014) Do eco-innovations need specific regional characteristics? An econometric analysis for Germany. *Review of Regional Research*, Vol.34, 23-38.

Horbach,J. - Rammer,Ch. – Rennings,K. (2012) Determinants of eco-innovations by type of environmental impact- The role of regulatory push/pull, technology push and market pull. *Ecological Economics*, Vol.78(1), 112-122.

Humphreys, A. (2010) Mega marketing: The creation of markets as a social process. *Journal of Marketing*, Vol.74(2), 1-19.

Humphreys, A. – Carpenter, G.S. (2018) Status games: Market driving through social influence in the U.S wine industry. *Journal of Marketing*, Vol.82(5), 141-159.

Hurmelinna-Laukkanen, P. – Puumalainen,K. (2007) The nature and dynamics of appropriability mechanisms- Strategies for appropriating returns on innovation. *R&D Management*, Vol.37(2), 95-112.

IEA (2023) Electric Vehicles 2023. IEA < https://www.iea.org/energy-system/transport/electric-vehicles - overview> , retrieved 7.12.2023.

Iken,N. – Morel,S. – Aggeri,F. (2019) Towards a sustainable material use in the automotive industry: Life Cycle Costing and socio-technical approach to material use, *Materiaux & Techniques*, Vol.107(5).

Jacobson, R. (1992) The "Austrian" school of strategy. *Academy of Management Review*, Vol.17(4), 782-807.

Jacquemin, L., Pontalier, P.Y. and Sablayrolles, C. (2012), "Life cycle assessment (LCA) applied to the process industry: a review", *The International Journal of Life Cycle Assessment*, Vol. 17, (8), 1028-1041.

Jasinki, D.- Meredith, J. – Kirwan, K. (2016) A comprehensive framework for automotive sustainability assessment. *Journal of Cleaner Production*, Vol.5, 1034-1044.

Jasinki, D.- Meredith, J. – Kirwan, K. (2021) Sustainable development model for measuring and managing sustainability in the automotive sector. *Journal of Sustainable Development,* Vol.29, 1123-1137.

Jaworski, B.J. – Kohli, A.K. – Sahay, A. (2000) Market-driven versus driving markets, *Journal of the Academy of Marketing Science*, Vol.28 (1), 45-54.

Jaworski,B.J. – Kohli, A.K. – Sarin, S. (2020) Driving markets: A typology and a seven-step approach. *Industrial Marketing Management*, Vol.91, 142-151.

Jimenez-Parra, B.- Alonso-Martinez, D.- Godos-Diez, J.L. (2018) The influence of corporate social responsibility on air pollution: Analysis of environmental regulation and eco-innovation effects. *Corporate Social Responsibility and Environmental Management,* Vol.25(6), 1363-1375.

Johnson, D.K.N. – Lybecker,K.M. (2012) Paying for green: An economics literature review on the constraints to financing environmental innovation, *Electronic Green Journal,* Vol.1(33), 1-10.

Kaartemo, V.- Nystrom, A.G. (2021) Emerging technology as a platform for market shaping and innovation. *Journal of Business Research,* Vol.124, 458-468.

Kaartemo,V.,and Pelto, E.(2017) Translation mechanisms of international market shaping: The transformation of the St. Petersburg bread market from 1997-2007, *Journal of East-West Business*, Vol.23 (3), 260-282.

Kachouie, R. – Mavondo, F. – Sands, S. (2018) Dynamic marketing capabilities view on creating market change. *European Journal of Marketing*, Vol.52(5/6), 1007-1036.

Kammerer, D. (2009) The effects of customer benefit and regulation on environmental product innovation. Empirical evidence from appliance manufacturers in Germany. *Ecological Economics*. Vol.68(8-9), 2285-2295.

Kemp, R. – Oltra, V. (2011) Research insights and challenges on Eco-innovation dynamics: Introduction. *Industry and Innovation*. Vol.18, 249-253.

Keskin, D. – Diehl, J.C. – Molenaar, N. (2013) Innovation process of new ventures driven by sustainability. *Journal of Cleaner Production*. Vol.45, 50-60.

Kim, W.C. – Mauborgne, R. (1999) Creating new market space. *Harvard Business Review*, Vol.77 (1), 83-93.

Kindstrom, D.- Makkonen,H.- Kaartemo, V. (2023) Delineating the fuzzy front end of market shaping, *Industrial Marketing Management*, Vol.112, 51-59.

Kindstrom, D.- Ottosson, M.- Carlborg, P. (2018) Unravelling firm-level activities for shaping markets. *Industrial Marketing Management*, Vol.68, 36-45.

Kitchenham, B. –Budgen, D.- Turner, M. – Khalil, M. (2007) Lessons from applying systematic literature reviews process within the software engineering domain. *Journal of Systems and Software*, Vol. 80 (4), 571-583.

Kjellberg, H. – Oslon, D. – Fischer, E. – Giesler, M. (2017) Joint markets: How adjacent markets influence the formation of regulated markets. *Marketing Theory*, Vol.17 (1), 95-123.

Kjeldgaard,D.- Askegaard,S.- Rasmussen,J.- Ostergaard,P. (2017) Consumers' collective action in market system dynamics: a case of beer. *Marketing theory*, Vol.17(1), 51-70.

Kjellberg, H.- Azimont, F.- Reid, E. (2015) Market innovation processes: balancing stability and change. *Industrial Marketing management*, Vol.44, 4-12.

Kjellberg, H. – Helgesson, C.-F. (2007) On the nature of markets and their practices. *Marketing Theory*, Vol. 7 (2), 137–162.

Klewitz, J. - Hansen, E.G. (2014), Sustainability-oriented innovation in SMEs: A systematic review, *Journal of Cleaner Production*, Vol. 65(1), 57-75.

Klewitz, J., Zeyen, A., & Hansen, E. G. (2012) Intermediaries driving Eco-innovation in SMEs: A qualitative investigation. *European Journal of Innovation Management*, Vol.15(4), 442–467.

Konard, K. – Markard, J. – Ruef, A. – Truffer, B. (2012) Strategic responses to fuel cell hype and disappointment, *Technological Forecasting & Social Change*. Vol. 79 (6), 1084-1098.

Korhonen, J. (2001) Four ecosystem principles for an industrial ecosystem. *Journal of Cleaner Production*, Vol.9 (3), 253-259.

Krippendorff, K. (2013) Content analysis: an introduction to its methodology. Sage Publication, USA.

Kumar, N. – Scheer, L. – Kotler, P. (2000) From market driven to market driving. *European Management Journal*, Vol.18 (2), 129-142.

Lee, B.H. – Struben, J. – Bingham, C.B. (2018) Collective action and market formation: An integrative framework. *Strategic Management Journal*, Vol.39 (1), 242-266.

Lester,J.N. – Cho,Y.- Lochmiller, C.R. (2020) Learning to do qualitative data analysis: a starting point. *Human Resource Development Review*. Vol.19, 94-106.

Levy, Yair Ellis, Timothy J. (2006) A systems approach to conduct an effective literature review in support of information systems research, *Informing Science*, Vol.9, 181-211.

Lincoln, Yvonna S. – Egon G. Guba (1985) *Naturalistic inquiry*, Sage. Beverly Hills, CA.

Linnenluecke, M.K. (2015) Resilience in business and management research: A review on influential publications and a research agenda: resilience in business and management research. *International Journal of Management Reviews*, Vol.19, 4-30.

Littell, Julia H. - Corcoran, Jacqueline - Pillai, Vijayan (2008) *Systematic reviews and meta-analysis*, Oxford University Press. New York.

Lopez Perez, G. – Garcia Sanchez, I.M. – Zafra Gomez, J. L. (2024) A systematic literatura review and bibliometric análisis of eco-innovation on financial performance: Identifying barriers and drivers. *Business Strategy and the Environment*. Vol.33 (2), 1321-1340.

Lozano,R. (2015) A holistic perspective on corporate sustainability drivers. *Corporate Social Responsibility and Environmental Management*.Vol.22 (1), 32-44.

Maçaneiro, M.B., Cunha, S.K., 2012. Eco-Innovation: A reference framework for future research. *Revista Innovare*, Vol.13 (1), 266–289.

Maldonado-Guzman, G., Garza-Rayes,J. A. (2020) Eco-innovation practices adaption in the automotive industry, *International Journal of Innovation Science*, Vol.12 (1), 80-98.

Malerba, F. (2002) Sectoral systems of innovation and production. *Research Policy*, Vol. 31(2), 247-264.

Mansilla-Obando, K. – Llanos, G. – Gomez-Sotta, E. – Buchuk, P. – Ortiz, F. – Aguirre, M. Ahumada, F. (2023) Eco-innovation in the food industry: Exploring consumer motivations in an emerging market. *Foods*, Vol.13 (1), 4.

Martin, D.M. – Schouten, J.W. (2014) Consumption-driven market emergence. The *Journal of Consumer Research*. Vol.40 (5), 855-870.

Mele, C.- Pels,J.- Storbacka.K (2015) A holistic market conceptualization. *Journal of the academy of marketing science.* Vol.43(1), 100-114.

Mele, C. – Russo-Spena, T. (2015) Infomediary agency and practices in shaping market innovation. *Industrial Marketing Management*, Vol.44, 42-53.

Messeni Petruzzelli, A. – Maria Dangelico, R. – Rotolo, D. – Albino, V. (2011) Organizational factors and technological features in the development of green innovations: Evidence from patent analysis. *Innovation (North Sydney),* Vol.13(3), 291-310.

Meyer, J.W. – Rowan, B. (1997) Institutionalized organizations: Formal structures as myth and ceremony. *American Journal of Sociology*, Vol.83 (2), 340-363.

Mishra,A.A.- Shah,R. (2009) In union lies strength: collaborative competence in new product development and its performance effects. *Journal of Operations Management,* Vol.25(5), 998-1014.

Mody, A. (2004) What Is an Emerging Market. *Georgetown Journal of International Law*, vol. 35(4), 641-664.

Mol, M.J. – Birkinshaw, J. (2006) Against the flow: Reaping the rewards of management innovation. *European Business Forum*, Vol.27, 24-29.

Mollinger-Sahba, A.- Flatau,P. – Schepis, D.- Purchase, Sh. (2021) Micro-processes of public good social innovation in the Australian social impact investment market. *Industrial Marketing Management*. Vol.93, 428-445.

Montabon, F.- Sroufe, R.- Narasimhan, R. (2007) An examination of corporate reporting, Environmental Management Practices and Firm Performance, *Journal of Operations Management*. Vol.25(5), 998-1014.

Narver, J.C. – Slater, S.F. – MacLachlan, D.L. (2004) Responsive and proactive market orientation and new-product success. *Journal of Product Innovation Management*, Vol.21(5), 334-347.

Nelson, R.R. (1991) Why do firms differ, and how does it matter? *Strategic Management Journal*. Vol.12 (S2), 61-74.

Nenonen, Suvi – Storbacka, Kaj – Sklyar, Alexey – Frow, Pennie – Payne, Adrian (2020) Value propositions as market-shaping devices: A qualitative comparative analysis, *Industrial Marketing Management*, Vol.87, 276-290.

Nenonen,S.- Storbacka,K.- Windahl,C. (2019a) Capabilities for market-shaping: triggering and facilitating. *Journal of the Academy of Marketing Science*, Vol.47, 617-639.

Nenonen, S. – Storbacka, K. – Frethey- Benthem, C. (2019b) Is your industrial marketing work working? Developing a composite index of market change. *Industrial Marketing Management*. Vol.80, 251-265.

Nguyen, N.P.- Adomako, S. (2022) stakeholder pressure for eco-friendly practices, international orientation, and eco-innovation: A study of small and medium-

sized enterprises in Vietnam. *Corporate social responsibility and environmental management,* Vol.29 (1), 79-88.

O'connor G.C. – Rice, M. (2012) New market creation for breakthrough innovations: enabling and constraining mechanisms: new market creation for breakthrough innovations. *The Journal of Product Innovation Management*, Vol.30, 209-227.

Oltra, V. – Saint-Jean, M. (2009) Sectoral systems of environmental innovation: An application to the French automotive industry. *Technological Forecasting and Social Change*. Vol.76 (4), 567-583.

Pacheco, D.A.J.- Schwengber ten Caten, C.- Jung,C.F.- Guitiss Navas, H.V.- Cruz-Machado, V. A. (2018) Eco-innovation determinants in manufacturing SMEs from emerging markets: Systematic literature review and challenges. *Journal of Engineering and Technology Management*, Vol.48, 44-63.

Page, M.J. – McKenzie, J.E. – Bossuyt, P.M. – Boutron, I.- Hoffmann, T.C.- Mulrow, C.D. – Shamseer, L. -Tetzlaff, J.M. – Alk,E.A. -Brennan, S,E – Chou, R. – Glanville, J. – Grimshaw, J.M. – Hrobjartsson, A. – Lalu, M.M. – Li,T. – Loder, E.W. - … (2021), The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *Systematic Reviews*, Vol.10 (1), 1-11.

Palda,K.S. (1986) Technological intensity: Concept and measurement. *Research Policy*. Vol.15 (4), 187-198.

Palmer, M. – Simmons, G. – Robinson, P.K. – Fearne, A. (2015) Institutional maintenance work and power preservation in business exchanges: Insights from industrial supplier workshops. *Industrial Marketing Management*, Vol.48, 214-225.

Pare, G. – Trudel, M.C- Janna, M.- Kitsiou, S. (2015) Synthesizing information systems knowledge: A typology of literature reviews. *Information and Management*, Vol.52(2).

Peiró-Signes, A., Segarra-Oña, M., Miret-Pastor, L., & Verma, R. (2011). Eco-innovation attitude and industry's technological level: An important key for promoting efficient vertical policies. *Environmental Engineering and Management Journal*, Vol.10, 1893–1901.

Penaloza, L.- Venkatesh,A. (2006) Further evolving the new dominant logic of marketing: from services to the social construction of markets. *Marketing Theory,* Vol.6(3), 299-326.

Peters,L.D.- Nenonen, S.- Polese, F.- Frow,P.- Payne, A. (2020) Viability mechanisms in market systems: prerequisites for market shaping. *The Journal of Business and Industrial Marketing*, Vol.35 (9), 1403-1412.

Pereira, A. – Vence, X. (2012) Key business factors for eco-innovation: an overview of recent firm-level empirical studies. *Cuadernos de Gestion*, Vol.12, 73-103.

Pinkse, J. – Bohnsack, R. – Kolk, A. (2014) The role of public and private protection in disruptive innovation: The automotive industry and the emergence of low-emission vehicles. *Journal of Product Innovation Management*, Vol.31(1), 43-60.

Pitelis, C.N. – Desyllas, P. – Panagopoulos, A. (2018) Profiting from innovation through cross-border market co-creation and co-operation: The case of global pharmaceuticals. *European Management Review*, Vol.15(4), 491-504.

Porter,M.E.- Van Der Linde,C. (1995) Toward a new conception of the environment-competitiveness relationship. *The Journal of Economic Perspectives*, Vol.9(4), 97-118.

Priem, R.L. – Butler, J.E.- Li,S. (2013) Towards reimagination strategy research: retrospection and prospection on the 2011 AMR decade award article. *Academy of Management Review*, Vol.38(4), 471-489.

Pujari, D. (2006) Eco-innovation and new product development: understanding the influences on market performance. *Technovation,* Vol.26 (1), 76-85.

Qi,G.Y. – Shen, L.Y. – Zeng, S.X. – Jorge, O.J. (2010) The drivers for contractors' green innovation: An industry perspective. *Journal of Cleaner Production*, Vol.18(14), 1358-1365.

Regany, F. – Benmecheddal, A. – Belkhir, M. Djelassi, S. (2021) Conflicting coexistence of legitimation and delegitimating logics in a revived market: The case of a traditional clothing market. *Journal of Business Research*, Vol.123, 438-449.

Rennings, K. (2000) Redefining innovation: eco-innovation research and the contribution from ecological economics. *Ecological Economics*. Vol.32 (2), 319-332.

Revell, A. – Rutherfoord, R. (2003) UK environmental policy and small firm: Broadening the focus. *Business Strategy and The Environment*. Vol.12(1), 26-35.

Ritala.P.- Hurmelinna-Laukkanen, P. (2013) Incremental and radical innovation in coopetition- the role of absorptive capacity and appropriability. *The Journal of Product Innovation Management,* Vol.30(1), 154-169.

Roderick,B.- Nenonen,S.- Storbacka,K. (2020), Market shaping and systemic innovation. *The Journal of Business & Industrial Marketing*, Vol.35(9),1385-1387.

Roscoe, S., Cousins, P.D. and Lamming, R.C. (2016), "Developing eco-innovations: a three-stage typology of supply networks", *Journal of Cleaner Production*, Vol. 112. (1), 1948-1959.

Sambamurthy, V. -Bharadwaj,A.- Grover, V. (2003) Shaping agility through digital options: reconceptualizing the role of information technology in contemporary firms. *MIS Quarterly*, Vol.27 (2), 237-263.

Sandberg, B. – Hurmerinta, L. – Zettinig, P. (2013) Highly innovative and extremely entrepreneurial individuals: What are these rare birds made of? *European Journal of Innovation Management*. Vol.16, 277-242.

Santos, F.M. – Eisenhardt, K.M. (2009) Constructing markets and shaping boundaries: Entrepreneurial power in nascent fields. *Academy of Management Journal,* Vol.52 (4), 643-671.

Segarra-ona, M.- Peiro-Signes, A. – Miret-Pastor, L. Albors-Garrigos,J. (2011) Eco-innovation, una ecolucion de la innovation? Analisis empirico en la industria cerámica española. *Boletín de la Sociedad Española de Cerámica y Vidrio*, Vol.50(5), 253-260.

Seidel, M. – Loch, C.H. – Chahil, S. (2005) Quo Vadis, automotive industry? A vision of possible industry transformations. *European Management Journal*, Vol.23 (4), 439-449.

Schutz, Alfred (1962) *Collected papers.1, The problem of social reality.* Martinus Nijhoff Publishers.

Shipley, L. (2020) How Tesla sets itself apart. Retrieved from Harvard Business review website. Available at <https://hbr.org/2020/02/how-tesla-sets-itself-apart > Accessed 18 January 2023.

Schumpeter, J.A. (1934) *The theory of economic development: An inquiry into profits, capital, credit, interest, and business cycle*. Cambridge, MA, Harvard University Press.

Simpson, M. -Taylor, N. – Barker, K. (2004) Environmental responsibility in SMEs: Does it deliver competitive advantage? *Business Strategy and The Environment*, Vol.13(3), 156-171.

Sorescue, A. – Spanjol, J. (2008) Innovation effects on firm value and risk: insights from consumer-packaged goods. *Journal of Marketing*, Vol.72 (2), 114-132.

Sprong, N. – Driessen, P.H. – Hillebrand, B.- Molner, S. (2021) Market innovation: A literature review and new research directions. *Journal of Business Research*, Vol.123, 450-462.

Storbacka, K. (2019) Actor engagement, value creation and market innovation. *Industrial Marketing Management,* Vol.80, 4-10.

Storbacka, K.- Nenonen, S. (2021) Managerial levers of market-shaping strategies: an abductive inquiry. *Journal of Global Scholars of Marketing Science*, Vol.31(3), 337-353.

Storbacka, K.- Nenonen,S. (2011) Scripting markets: from value propositions to market propositions. *Industrial Marketing Management*, Vol.40, 255-256.

Storbacka K., Nenonen S. (2015). Learning with the market: Facilitating market innovation. *Industrial Marketing Management*, Vol.44, 73–82.

Stringham, E.P. – Miller, J.K. – Clark, J.R. (2015) Overcoming barriers to entry in an established industry: Tesla Motors. *California Management Review*, Vol.57 (4), 85-103.

Struben, J. – Lee, B.H. – Bingham, C.B. (2020) Collective action problems and resources allocation during market formation. *Strategy Science*, Vol.5 (3), 245-270.

Stubbs,W.- Cocklin,C. (2008) Conceptualizing a “sustainability Business Model”. *Organization & Environment*, Vol.21(2), 103-127.

Tang, T. – Zhang, Sh. – Peng, J. (2021) The value of marketing innovation: Market-driven versus market driving. *Journal of Business Research*, Vol.126, 88-98.

Tantalo, C. – Priem, R.L. (2016) Value Creation through stakeholder synergy. Strategic Management Journal, Vol.37(2), 314-329.

Teece, David.J. (2009) *Dynamic capabilities and strategic management: Organizing for innovation and growth*. Oxford University Press.

Thornton, P.H. – Ocasio, W. (1999) Institutional logics and the historical contingency of power in organizations: Executive succession in the higher education publishing industry, 1958-1990. *American Journal of Sociology*, Vol.105, 801-843.

Triebswetter, U. – Wackerbauer, J. (2008) Integrated environmental product innovation and impacts on company competitiveness: A case study of the automotive industry in the region of Munich. *European Environment*. Vol.18 (1), 30-44.

Triguero, A. - Moreno-Mondéjar, L.- Davia, M. (2013) Drivers of different types of eco-innovation in European SMEs, *Ecological Economics*, Vol. 92 (2), 25-33.

Tuominen, M. – Rajala, A. – Moller, K. (2004) Market-driving versus market-driven: Divergent roles of market orientation in business relationships. *Industrial Marketing Management*, Vol.33 (3), 207-217.

Tushman, M. – Anderson, P. (1986) Technological discontinuities and organizational environments. *Administrative Science Quarterly*, Vol.31(3):439–65

Vanhala, M.- Lu, C. – Peltonen, J.- Sundqvist, S. – Nummenmaa,J.- Järvelin, K. (2020) The usage of large data sets in online consumer behaviour : a bibliometric and

computational text- mining- driven analysis of previous research. *Journal of Business Research*, Vol.106, 46-59.

Vargas-Vargas, M. – Meseguer-Santamaria,M.L, Mondejar-Jimenez,J.- Mondejar-Jimenez,J.A. (2010) Environmental protection expenditure for companies: a Spanish regional analysis. *International Journal of Environmental Research*, Vol.4, 373-378.

Vargo, S.L. – Koskela-Huotari, K. – Baron, S. – Edvardsson, B. – Reynoso,J. – Colucrio, M. (2017) A systems perspective on markets – Towards a research agenda. *Journal of Business Research*. Vol.79, 260-268.

Vargo,S.L. Lusch, R.F. (2017) Service-dominant logic 2025. *International Journal of Research in Marketing,* Vol.34 (1), 46-67.

Vargo, S.L. – Wieland, H. – Akaka, M.A. (2015) Innovation through institutionalization: A service ecosystems perspective. *Industrial Marketing Management,* Vol.44, 63-72.

Vence, X. – Pereira, A. (2019) Eco-innovation and circular business models as drivers for a circular economy. *Contaduria Administracion*, Vol.64.

Verbrugge, Sofie – Van der Wee, Marlies – Falch, Morten – Lemstra, Wolter (2018) Is policy shaping the market, or is the market shaping policy? Evaluation of policy measures on the fixed and mobile broadband market. *Telecommunications Policy,* Vol.42 (9), 659–660.

Wagner, M. (2008) Empirical influence of environmental management on innovation: Evidence from Europe. *Ecological Economics*, Vol.66(2), 392-402.

Wagner, M. – Llerena, P. (2011) Eco-innovation through integration, regulation, and cooperation: comparative insights from case studies in three manufacturing sectors. *Industry and Innovation*, Vol.18 (8), 747-764.

Wanden-Berghe C., Sanz-Valero J. 2012. “Systematic Reviews in Nutrition: Standardized Methodology.” *British Journal of Nutrition*, Vol.107, S3–S7.

Watson, Richard.T. – Webster, J. (2002) Analysing the past to prepare for the future: Writing a literature review a roadmap for release. *Journal of Decision Systems,* Vol.29 (3), 129-147.

Wesseling, J.H.- Farla, J.M.C.- Hekkert, M.P. (2015) Exploring car manufacturers’ responses to technology-forcing regulation: The case of California’s ZEV mandate. *Environmental Innovation and Societal Transitions*, Vol.16, 87-105.

Werner,V. – Flaig, A. – Magnusson, T. – Ottosson,M. (2022) Using dynamic capabilities to shape markets for alternative technologies: A comparative case study of automotive incumbents. *Environmental Innovation and Societal Transition*, Vol.42, 12-26.

Wu,G.C. (2013) The influence of green supply chain integration and environmental uncertainty on green innovation in Taiwan’s IT industry. *Supply Chain Management*, Vol.18(5), 539-552.

Xiao,Y. – Watson,M. (2019) Guidance on conducting a systematic literature review. *Journal of Planning Education and Research*, Vol.39 (1), 93-112.

Yadav, S.S.K. – Dubey, A. (2023) Managing innovation: literature review and research directions. *International Journal of Business and Globalization*, Vol.33 (3), 271-285.

Yalabik,B. – Fairchild,R.J. (2011) Customer, regulatory, and competitive pressure as drivers of environmental innovation. *International Journal of Production Economics*, Vol.131(2), 519-527.

Yao, Q.-Liu,J.-Sheng,Sh.-Fang,H. (2019) Does eco-innovation lift firm value? The contingent role of institutions in emerging markets. *The Journal of Business & Industrial Marketing*, Vol.34(8), 1763-1778.

Yuan, G. – Ye, Q. – Sun, Y. (2021) Financial innovation, information screening and industries' green innovation - industry-level evidence from the OECD. *Technological Forecasting & Social Change*. Vol.171, 120998.

Zalaghi, H. – Khazaei, M. (2016) The role of deductive and inductive reasoning in accounting research and standard setting. *Asian Journal of Finance and Accounting,* Vol.8(1).

Zhu, Q. – Sarkis, J.- Lai, K.L. (2006) Green supply chain management: pressures, practices, and performance within the Chinese automobile industry. *Journal of Cleaner Production*, Vol.15(11), 1041-1052.

Appendices

Appendix 1 List of reviewed articles for the systematic literature review

Title of the article	Author/s	Journal	Year
How eco-innovation determinants and eco-innovation strategy influences sustainability performance of SMEs? Mediating role of eco-innovation strategy	Aksu, B. – Akman, G.	Journal of Knowledge Economy.	2023
Market shaping through controversial innovation	Ben-Slimane, K.- Fessi, L.	International Journal of Market Research	2023
Exploring the demand-pull effect on green innovation and its spatial spillover effects: evidence from 261 Chinese prefecture-level cities	Hou, P. – Guo, J.	Sustainability (Bael, Switzerland)	2023
Delineating the fuzzy front end of market shaping	Kindstrom, D.- Makkonen,H.- Kaartemo, V.	Industrial Marketing Management	2023
Eco-innovation in the food industry: Exploring consumer motivations in an emerging market	Mansilla-Obando, K. – Llanos, G. – Gomez-Sotta, E. – Buchuk, P. – Ortiz, F. – Aguirre, M. Ahumada, F.	Foods	2023

Managing innovation: literature review and research directions	Yadav, S.S.K. – Dubey, A.	International Journal of Business and Globalization	2023
Radical innovation, incremental innovation, and competitive advantage, the moderating role of technological intensity: evidence from the manufacturing sector in Jordan	Al-khatib, A.W. – Al-ghanem, E.M.	European Business Review	2022
The market evolution and sales take-off of product innovations	Agarwal, R. – Bayus, B.L.	Management Science	2022
stakeholder pressure for eco-friendly practices, international orientation, and eco-innovation: A study of small and medium-sized enterprises in Vietnam.	Nguyen, N.P.- Adomako, S.	Corporate social responsibility and environmental management	2022
Using dynamic capabilities to shape markets for alternative technologies: A comparative case study of automotive incumbents.	Werner,V. – Flaig, A. – Magnusson, T. – Ottosson,M	Environmental Innovation and Societal Transition	2022
Collective market shaping by competitors	Beninger, S. – Francis, J.N.P.	Journal of Business Research	2021

and its contribution to market resilience			
The ins and outs of market shaping: Exclusion as a dark side?	Cova, B. – Ivens, B.S. – Spencer, R.	Journal of Business Research	2021
Shaping sustainable development: External environmental pressure, exploratory green learning, and radical green innovation	Cui,R. – Wang, J.	Corporate Social-Responsibility and Environmental Management.	2021
Market bifurcations in board sports: How consumers shape markets through boundary work	Diaz Ruiz, C. – Makkar, M.	Journal of Business Research	2021
Market-shaping strategies: A conceptual framework for generating market outcomes	Flaig,A., Kindström,D., Ottosson,M.	Industrial Marketing Management	2021
Market-shaping phases-A qualitative meta-analysis conceptual framework	Flaig,A., Kindström,D., Ottosson,M.	AMS Review	2021
Sustainable development model for measuring and managing sustainability in the automotive sector.	Jasinki, D.- Meredith, J. – Kirwan, K.	Journal of Sustainable Development	2021

Emerging technology as a platform for market shaping and innovation	Kaartemo, V.- Nystrom, A.G.	Journal of Business Research	2021
Micro-processes of public good social innovation in the Australian social impact investment market	Mollinger-Sahba, A.- Flatau,P. – Schepis, D.- Purchase, Sh.	Industrial Marketing Management	2021
Conflicting coexistence of legitimation and delegitimating logics in a revived market: The case of a traditional clothing market	Regany, F. – Benmecheddal, A. – Belkhir, M. Djelassi, S.	Journal of Business Research	2021
Market innovation: A literature review and new research directions	Sprong, N. – Driessen, P.H. – Hillebrand, B.- Molner, S.	Journal of Business Research	2021
Managerial levers of market-shaping strategies: an abductive inquiry	Storbacka, K.- Nenonen, S.	Journal of Global Scholars of Marketing Science	2021
Market innovation: A literature review and new research directions.	Sprong, N. – Driessen, P.H. – Hillebrand, B.- Molner, S.	Journal of Business Research	2021
Managerial levers of market-shaping strategies: an abductive inquiry	Storbacka, K.- Nenonen, S.	Journal of Global Scholars of Marketing Science	2021

The value of marketing innovation: Market-driven versus market driving	Tang, T. – Zhang, Sh. – Peng, J.	Journal of Business Research	2021
Financial innovation, information screening and industries' green innovation - industry-level evidence from the OECD	Yuan, G. – Ye, Q. – Sun, Y.	Technological Forecasting & Social Change	2021
Collaborating to shape markets: emergent collective market work	Baker, J.J. – Nenonen, S.	Industrial Marketing Management	2020
Market shaping and systematic innovation	Brodie,R. Nenonen, S. – Storbacka, k.	The Journal of Business & Industrial Marketing.	2020
Conceptual controversies at the boundaries between markets: the case of ridesharing	Chimenti, G.	Consumption, Markets & Culture.	2020
Market-scanning and market-shaping: why are firms blindsided by market-shaping acts?	Diaz Ruiz, C.A. – Baker, J.J – Mason, K. – Tierney, K.	The Journal of Business & Industrial Marketing.	2020
Market mash ups: The process of combinational market innovation	Geiger, S. – Kjellberg, H.	Journal of Business Research.	2020
Composing markets: A framework of	Hawa, J.- Baker,J.- Plewa, C.	Journal of Business Research	2020

intentionality in market-shaping.			
Driving markets: A typology and a seven-step approach	Jaworski,B.J. – Kohli, A.K. – Sarin, S.	Industrial Marketing Management	2020
Eco-innovation practices adaption in the automotive industry	Maldonado-Guzman, G., Garza-Rayes,J. A.	International Journal of Innovation Science	2020
Value propositions as market-shaping devices: A qualitative comparative analysis	Nenonen, Suvi – Storbacka, Kaj – Sklyar, Alexey – Frow, Pennie – Payne, Adrian	Industrial Marketing Management	2020
Viability mechanisms in market systems: prerequisites for market shaping	Peters,L.D.- Nenonen, S.- Polese, F.- Frow,P.- Payne, A.	The Journal of Business and Industrial Marketing	2020
Market shaping and systemic innovation.	Roderick,B.- Nenonen,S.- Storbacka,K.	The Journal of Business & Industrial Marketing	2020
Collective action problems and resources allocation during market formation	Struben, J. – Lee, B.H. – Bingham, C.B.	Strategy Science	2020
Collective action problems and resources allocation during market formation	Struben, J. – Lee, B.H. – Bingham, C.B.	Strategy Science	2020
The usage of large data sets in online consumer	Vanhala, M.- Lu, C. – Peltonen, J.-	Journal of Business Research	2020

behaviour : a bibliometric and computational text-mining- driven analysis of previous research	Sundqvist, S. – Nummenmaa,J.-Järvelin, K.		
Markets changing, changing markets: institutional work as market-shaping	Baker,J.J.-Storbacka,K.-Brodie,R.J.	Marketing Theory	2019
The discourse of eco-innovation in the European Union: An analysis of the Eco-Innovation Action Plan and Horizon 2020	Colombo, L.A-Pansera, M.-Owen,R.	Journal of Cleaner Production	2019
Driving sectoral sustainability via the diffusion of organizational eco-innovations.	Garcia-Quevedo, J. – Kesidou, E. – Martinez-Ros, E.	Business Strategy and the Environment.	2019
Towards a sustainable material use in the automotive industry: Life Cycle Costing and socio-technical approach to material use	Iken,N. – Morel,S. – Aggeri,F.	Materiaux & Techniques	2019
Capabilities for market-shaping: triggering and facilitating	Nenonen,S.-Storbacka,K.-Windahl,C.	Journal of the Academy of Marketing Science	2019a
Is your industrial marketing work working? Developing a	Nenonen, S. – Storbacka, K. – Frethey-Benthem, C.	Industrial Marketing Management	2019b

composite index of market change			
Actor engagement, value creation and market innovation	Storbacka, K.	Industrial Marketing Management	2019
Actor engagement, value creation and market innovation	Storbacka, K.	Industrial Marketing Management	2019
Eco-innovation and circular business models as drivers for a circular economy	Vence, X. – Pereira, A.	Contaduria Administracion	2019
Does eco-innovation lift firm value? The contingent role of institutions in emerging markets	Yao, Q.-Liu,J.-Sheng,Sh.-Fang,H.	The Journal of Business & Industrial Marketing	2019
The impact of regulatory complexity upon self-regulation: Evidence from the adaption and certification of environmental management systems	Demirel, P. – Latridis, K. – Kesidou, E.	Journal of Environmental Management	2018
Contemporary corporate eco-innovation research: a systematic review	He, F., Miao, X., Wong, C.W. and Lee, S.	Journal of Cleaner Production	2018
Status games: Market driving through social influence in the U.S wine industry	Humphreys, A. – Carpenter, G.S.	Journal of Marketing	2018
The influence of corporate social	Jimenez-Parra, B.- Alonso-	Corporate Social Responsibility and	2018

responsibility on air pollution: Analysis of environmental regulation and eco-innovation effects	Martinez, D.- Godos-Diez, J.L.	Environmental Management	
Dynamic marketing capabilities view on creating market change	Kachouie, R. – Mavondo, F. – Sands, S.	European Journal of Marketing	2018
Unravelling firm-level activities for shaping markets	Kindstrom, D.- Ottosson, M.- Carlborg, P	Industrial Marketing Management	2018
Collective action and market formation: An integrative framework	Lee, B.H. – Struben, J. – Bingham, C.B.	Strategic Management Journal	2018
Eco-innovation determinants in manufacturing SMEs from emerging markets: Systematic literature review and challenges	Pacheco, D.A.J.- Schwengber ten Caten, C.- Jung,C.F.- Guitiss Navas, H.V.- Cruz-Machado, V. A.	Journal of Engineering and Technology Management	2018
Profiting from innovation through cross-border market co-creation and co-operation: The case of global pharmaceuticals	Pitelis, C.N. – Desyllas, P. – Panagopoulos, A.	European Management Review	2018
Is policy shaping the market, or is the market shaping policy? Evaluation of policy measures on the fixed	Verbrugge, Sofie – Van der Wee, Marlies – Falch, Morten – Lemstra, Wolter	Telecommunications Policy	2018

and mobile broadband market			
Service-dominant logic 2025	Vargo,S.L. Lusch, R.F.	International Journal of Research in Marketing	2017
Relationship between sustainable operations practices and performance: a meta-analysis	D'agostini, M. – Tondolo, V.A.G.- Camargo, M.E.- Dullius, A.I.S- Tondolo, R.R.P- Russo, S.L.	International Journal of Productivity and Performance Management	2017
Sectoral dynamics and technological convergence: an evolutionary analysis of eco-innovation in the automotive sector	Faria, L.G.D. – Andersen, M.M.	Industry and Innovation	2017
Sectoral patterns versus firm-level heterogeneity – The dynamics of eco-innovation strategies in the automotive sector	Faria, L.G.D. - Andersen, M.M.	Technological Forecasting & Social Change	2017
Fifteen years of research on business model innovation: How far have we come, and where should we go?	Foss, N.J. – Saebi, T.	Journal of Management	2017
Searching, shaping, and the quest for superior performance	Gavetti, G., Helfat, C.E.- Marengo, L.	Strategy science	2017
Translation mechanisms of international market	Kaartemo,V.,and Pelto, E.	Journal of East-West Business	2017

shaping: The transformation of the St. Petersburg bread market from 1997-2007			
Joint markets: How adjacent markets influence the formation of regulated markets	Kjellberg, H. – Oslon, D. – Fischer, E. – Giesler, M.	Marketing Theory	2017
Consumers' collective action in market system dynamics: a case of beer	Kjeldgaard,D.- Askegaard,S.- Rasmussen,J.- Ostergaard,P.	Marketing Theory	2017
A systems perspective on markets – Towards a research agenda.	Vargo, S.L. – Koskela-Huotari, K. – Baron, S. – Edvardsson, B. – Reynoso,J. – Colucrio, M.	Journal of Business Research	2017
The drivers for adaption of eco-innovation	Bonzanini Bossle, M. – Dutra de Barcellos, M. – Vieira, Luciana Marques, Sauvee, L.	Journal of Cleaner Production	2016
Promissories and pharmaceutical patents: agencing markets through public narratives	Geiger, S. – Finch, J.	Consumption, Markets, and Culture	2016
A comprehensive framework for automotive	Jasinki, D.- Meredith, J. – Kirwan, K.	Journal of Cleaner Production	2016

sustainability assessment			
Developing eco-innovations: a three-stage typology of supply networks	Roscoe, S., Cousins, P.D. and Lamming, R.C.	Journal of Cleaner Production	2016
Developing eco-innovations: a three-stage typology of supply networks	Roscoe, S., Cousins, P.D. and Lamming, R.C.	Journal of Cleaner Production	2016
Value Creation through stakeholder synergy	Tantalo, C. – Priem, R.L.	Strategic Management Journal	2016
Eco-innovation dynamics and green economic change: the role of sectoral-specific patterns	Andersen, M. – Faria, L.	R&D Management Conference	2015
Studies of equity returns in emerging markets: A literature review	Altigan, Y.- Demirtas, K.O.- Simsek, K.D.	Emerging Markets Finance & Trades	2015
Transition pathways revisited: Established firms as multi-level actors in the heavy vehicle industry	Berggren,C. – Magnusson,T. – Sushandoyo, D.	Research Policy	2015
What is disruptive innovation? Twenty years after the introduction of the theory, we revisit what it	Christensen, Clayton. M. – Raynor, Michael. E. – McDonald, R.	*Harvard Business Review*	2015

does- and doesn't explain			
How environmental management competitive pressure affects a focal firm's environmental innovation activities: A green supply chain perspective	Dai, J.- Cantor,D.E.- Montabon,F.L.(	Journal of Business Logistics	2015
Eco-innovation: insights from a literature review	Diaz-Garcia, C.- Gonzalez-Moreno, A.- Saez-Martinez, F.J.	Innovation: Management, Policy & Practice	2015
Firm's eco-innovation intensity and sectoral system of innovation: the case of French industry	Galliano, D. – Nadel, S.	Industry & Innovation	2015
Market innovation processes: balancing stability and change	Kjellberg, H.- Azimont, F.- Reid, E.	Industrial Marketing management	2015
A holistic perspective on corporate sustainability drivers	Lozano,R.	Corporate Social Responsibility and Environmental Management	2015
A holistic market conceptualization	Mele, C.- Pels,J.- Storbacka.K.	Journal of the academy of marketing science	2015

Infomediary agency and practices in shaping market innovation	Mele, C. – Russo-Spena, T.	Industrial Marketing Management	2015
Institutional maintenance work and power preservation in business exchanges: Insights from industrial supplier workshops	Palmer, M. – Simmons, G. – Robinson, P.K. – Fearne, A.	Industrial Marketing Management	2015
Learning with the market: Facilitating market innovation	Storbacka K., Nenonen S.	Industrial Marketing Management	2015
Overcoming barriers to entry in an established industry: Tesla Motors	Stringham, E.P. – Miller, J.K. – Clark, J.R.	California Management Review	2015
Innovation through institutionalization: A service ecosystems perspective	Vargo, S.L. – Wieland, H. – Akaka, M.A.	Industrial Marketing Management	2015
Exploring car manufacturers' responses to technology-forcing regulation: The case of California's ZEV mandate	Wesseling, J.H.- Farla, J.M.C.- Hekkert, M.P.	Environmental Innovation and Societal Transitions	2015
Market-widening: Shaping total market demand for French and American bicycles circa 1890	Burr, T.C.	Market Theory	2014
The determinants of green radical and incremental innovation	Chen, Y.S. - Chang, C.H. – Lin, Y.H	Sustainability (Basel, Switzerland)	2014

performance: green shared vision, green absorptive capacity, and green organizational ambidexterity			
Do eco-innovations need specific regional characteristics? An econometric analysis for Germany.	Horbach, J.	Review of Regional Research	2014
Sustainability-oriented innovation in SMEs: A systematic review	Klewitz, J. - Hansen, E.G.	Journal of Cleaner Production	2014
Consumption-driven market emergence	Martin, D.M. – Schouten, J.W.	The Journal of Consumer Research	2014
The role of public and private protection in disruptive innovation: The automotive industry and the emergence of low-emission vehicles	Pinkse, J. – Bohnsack, R. – Kolk, A.	Journal of Product Innovation Management	2014
Drivers of eco-innovation in the chemical industry	González-Moreno, A., Sáez-Martínez, F. J., & Díaz-García, C.	Environmental Engineering and Management Journal	2013
Stakeholder's influence on corporate green innovation strategies: A case study of manufacturing firms in China	Guoyou, Qi. – Saixing, Z. – Chiming, T. Haitao, Y. – Hailiang, Z.	Corporate Social-Responsibility & Environmental Management	2013

Stakeholders' influence on corporate green innovation strategy: A case study of manufacturing firms in China.	Guoyou, Q., Saixing, Z., Chiming, T., Haitao, Y., & Hailiang, Z.	Corporate Social Responsibility and Environmental Management	2013
Innovation process of new ventures driven by sustainability	Keskin, D. – Diehl, J.C. – Molenaar, N.	Journal of Cleaner Production	2013
Incremental and radical innovation in coopetition- the role of absorptive capacity and appropriability	Ritala.P.- Hurmelinna-Laukkanen, P.	The Journal of Product Innovation Management	2013
Incremental and radical innovation in coopetition- the role of absorptive capacity and appropriability	Ritala.P.- Hurmelinna-Laukkanen, P.	The Journal of Product Innovation Management	2013
Highly innovative and extremely entrepreneurial individuals: What are these rare birds made of?	Sandberg, B. – Hurmerinta, L. – Zettinig, P.	European Journal of Innovation Management	2013
Drivers of different types of eco-innovation in European SMEs	Triguero, A. - Moreno-Mondéjar, L.- Davia, M.	Ecological Economics	2013
The influence of green supply chain integration and environmental	Wu,G.C.	Supply Chain Management	2013

uncertainty on green innovation in Taiwan's IT industry			
Reflections on service systems boundaries: a viable systems perspectives. The case of the London Borough of Sut-ton	Barile,S.-Saviano,M.-Polese,F.-Nauta,P.D.	European Management Journal	2012
Extended producer responsibility instruments and innovation in eco-design: An exploration through a simulation model	Brouillat, E. – Oltra, V.	Ecological Economics	2012
Creating major innovations with customers: Insights from small and young technology firms	Coviello,N.E. – Joseph, R.M.	Journal of Marketing	2012
Regulation and firm perception, Eco-innovation, and firm performance	Doran, J. – Ryan, G.	European Journal of Innovation Management	2012
Shaping exchanges, building markets	Geiger,S. – Kjellberg,H. – Spencer, R.	Consumption, Markets & Culture	2012
Non-profit organizations shaping the market of supplies.	Herlin H. – Pazirandeh A.	International Journal of Production Economics	2012

The competitive determinants of a firm's environmental management activities: Evidence from US manufacturing industries	Hofer,C. – Cantor, D. – Dai,J.	Journal of Operations Management	2012
Determinants of eco-innovations by type of environmental impact-The role of regulatory push/pull, technology push and market pull	Horbach,J. - Rammer,Ch. – Rennings,K.	Ecological Economics	2012
Life cycle assessment (LCA) applied to the process industry: a review	Jacquemin, L., Pontalier, P.Y. and Sablayrolles, C.	The International Journal of Life Cycle Assessment	2012
Paying for green: An economics literature review on the constraints to financing environmental innovation	Johnson, D.K.N. – Lybecker,K.M.	Electronic Green Journal	2012
Intermediaries driving eco-innovation in SMEs: A qualitative investigation	Klewitz, J., Zeyen, A., & Hansen, E. G.	European Journal of Innovation Management	2012
Strategic responses to fuel cell hype and disappointment	Konard, K. – Markard, J. – Ruef, A. – Truffer, B.	Technological Forecasting & Social Change	2012
Eco-Innovation: A reference framework for future research	Maçaneiro, M.B., Cunha, S.K.	Revista Innovare	2012

New market creation for breakthrough innovations: enabling and constraining mechanisms: new market creation for breakthrough innovations	O'connor G.C. – Rice, M.	The Journal of Product Innovation Management	2012
Key business factors for eco-innovation: an overview of recent firm-level empirical studies	Pereira, A. – Vence, X.	Cuadernos de Gestion	2012
Environmental innovations, complementarity, and local/global cooperation: evidence from North-East Italian industry	Cainelli, G.- Mazzanti, M. – Zoboli, R.	International Journal of Technology, Policy & Management	2011
Stimulating different types of eco-innovation in the UK: government policies and firm motivations	Demirel, P. and Kesidou, E.	Ecological Economics	2011
On the roles of individuals as social drivers for eco-innovation	Grunwald, A.	Journal of Industrial Ecology	2011
Shaping an emerging market for electric cars: How politics in France and Germany transforms the European automotive industry.	Hildermeier, J. – Villareal,A.	European Review of Industrial Economics and Policy	2011

Research insights and challenges on Eco-innovation dynamics: Introduction	Kemp, R. – Oltra, V.	Industry and Innovation	2011
Organizational factors and technological features in the development of green innovations: Evidence from patent analysis	Messeni Petruzzelli, A. – Maria Dangelico, R. – Rotolo, D. – Albino, V.	Innovation (North Sydney)	2011
Eco-innovation attitude and industry's technological level: An important key for promoting efficient vertical policies.	Peiró-Signes, A., Segarra-Oña, M., Miret-Pastor, L., & Verma, R.	Environmental Engineering and Management Journal	2011
Eco-innovation, una ecolucion de la innovation? Analisis empirico en la industria cerámica española.	Segarra-ona, M.- Peiro-Signes, A. – Miret-Pastor, L. Albors-Garrigos,J.	Boletín de la Sociedad Española de Cerámica y Vidrio	2011
Scripting markets: from value propositions to market propositions	Storbacka, K.- Nenonen,S.	Industrial Marketing Management	2011
Eco-innovation through integration, regulation, and cooperation: comparative insights from case studies in three manufacturing sectors	Wagner, M. – Llerena, P.	Industry and Innovation	2011

Customer, regulatory, and competitive pressure as drivers of environmental innovation	Yalabik,B. – Fairchild,R.J.	International Journal of Production Economics	2011
How do fields change? The interrelations of institutions, networks, and cognition in the dynamics of markets	Beckert,J.	Organization Studies	2010
Diversity of eco-innovations: Reflections from selected case studies	Carrillo-Hermosilla, J. – Del Rio, P.	Journal of Cleaner Production	2010
Mega marketing: The creation of markets as a social process	Humphreys, A.	Journal of Marketing	2010
The drivers for contractors' green innovation: An industry perspective	Qi,G.Y. – Shen, L.Y. – Zeng, S.X. – Jorge, O.J.	Journal of Cleaner Production	2010
Environmental protection expenditure for companies: a Spanish regional analysis	Vargas-Vargas, M. – Meseguer-Santamaria,M.L, Mondejar-Jimenez,J.-Mondejar-Jimenez,J.A.	International Journal of Environmental Research	2010
Graded eco-labels: A demand-oriented approach to reduce pollution	Bleda, M. – Valente, M.	Technological Forecasting & Social Change	2009

The effects of customer benefit and regulation on environmental product innovation. Empirical evidence from appliance manufacturers in Germany	Kammerer, D.	Ecological Economics	2009
In union lies strength: collaborative competence in new product development and its performance effects.	Mishra,A.A.-Shah,R.	Journal of Operations Management	2009
Sectoral systems of environmental innovation: An application to the French automotive industry	Oltra, V. – Saint-Jean, M.	Technological Forecasting and Social Change	2009
Constructing markets and shaping boundaries: Entrepreneurial power in nascent fields	Santos, F.M. – Eisenhardt, K.M.	Academy of Management Journal	2009
Environmental strategy and performance in small firms: A resource-based perspective	Aragon-Correa, J.A. – Hurtado-Torres, N. Sharma, S. – Garcia-Morales, V.J.	Journal of Environmental Management	2008
Do environmental management systems improve business performance in an international setting?	Darnall, N. – Henriques, I. – Sadorsky, P.	Journal of International Management	2008

Green and competitive? An empirical test of the mediating role of environmental innovation strategy	Eiadat, Y. – Kelly, A. – Roche, F. Eyadat, H.	Journal of World Business	2008
Conflict and compromise: drama in marketplace evolution	Giesler,M.	The Journal of Consumer Research	2008
Determinants of environmental innovation: New evidence from German panel data sources	Horbach, J.	Research Policy	2008
Innovation effects on firm value and risk: insights from consumer-packaged goods	Sorescue, A. – Spanjol, J.	Journal of Marketing	2008
Conceptualizing a "sustainability Business Model"	Stubbs,W.- Cocklin,C.	Organization & Environment	2008
Integrated environmental product innovation and impacts on company competitiveness: A case study of the automotive industry in the region of Munich.	Triebswetter, U. – Wackerbauer, J.	European Environment	2008
Empirical influence of environmental management on	Wagner, M.	Ecological Economics	2008

innovation: Evidence from Europe			
Category reviews as market-shaping events	Azimont, F. – Araujo, L.	Industrial Marketing Management	2007
Finding the right job for your product	Christensen,C.M. – Anthony, S.D.- Berstll, G. – Nitterhouse, D	MIT Sloan Management Review	2007
Dimensions of environmentally sustainable innovation: The structure of eco-innovation concepts.	Hellstrom,T.	Sustainable Development	2007
The nature and dynamics of appropriability mechanisms- Strategies for appropriating returns on innovation	Hurmelinna-Laukkanen, P. – Puumalainen,K.	R&D Management	2007
On the nature of markets and their practices	Kjellberg, H. – Helgesson, C.-F.	Marketing Theory	2007
An examination of corporate reporting, Environmental Management Practices and Firm Performance	Montabon, F.- Sroufe, R.- Narasimhan, R.	Journal of Operations Management	2007
Strategy as practical coping: A Heideggerian perspective.	Chia, R. – Holt, R.	Organization Studies	2006
Against the flow: Reaping the rewards of management innovation	Mol, M.J. – Birkinshaw, J.	European Business Forum	2006

Further evolving the new dominant logic of marketing: from services to the social construction of markets	Penaloza, L.- Venkatesh,A.	Marketing Theory	2006
Eco-innovation and new product development: understanding the influences on market performance	Pujari, D.	Technovation	2006
Green supply chain management: pressures, practices, and performance within the Chinese automobile industry	Zhu, Q. – Sarkis, J.- Lai, K.L.	Journal of Cleaner Production	2006
Towards inherently secure and resilient societies	Allenby, B. – Fink, J.	Science (American Association for the Advancement of Science)	2005
Analysing the factors influencing clean technology adaption: A study of the Spanish pulp and paper industry	Del Rio, P.	Business Strategy and Environment	2005
Revisiting the miles and snow strategic framework: uncovering interrelationships between strategic types,	Desarbo, W.S. – Anthony Di Benedetto, C. – Song, M. Sinha, I.	Strategic Management Journal	2005

capabilities, environmental uncertainty, and firm performance			
Quo Vadis, automotive industry? A vision of possible industry transformations	Seidel, M. – Loch, C.H. – Chahil, S.	European Management Journal	2005
What Is an Emerging Market	Mody, A.	*Georgetown Journal of International Law*	2004
Responsive and proactive market orientation and new-product success	Narver, J.C. – Slater, S.F. – MacLachlan, D.L.	Journal of Product Innovation Management	2004
Environmental responsibility in SMEs: Does it deliver competitive advantage?	Simpson, M. - Taylor, N. – Barker, K.	Business Strategy and The Environment	2004
Market-driving versus market-driven: Divergent roles of market orientation in business relationships.	Tuominen, M. – Rajala, A. – Moller, K.	Industrial Marketing Management	2004
From market driven to market driving: An alternate paradigm for marketing in high technology industries.	Hills, S.B. – Sarin, S.	Journal of Marketing Theory and Practice	2003
UK environmental policy and small firm: Broadening the focus.	Revell, A. – Rutherfoord, R.	Business Strategy and The Environment	2003

Shaping agility through digital options: reconceptualizing the role of information technology in contemporary firms	Sambamurthy, V. -Bharadwaj,A.- Grover, V.	MIS Quarterly	2003
Technological transitions as evolutionary reconfiguration processes: a multi-level perspective and case-study	Geels, F.W.	Research Policy	2002
Sectoral systems of innovation and production	Malerba, F.	Research Policy	2002
Innovation and corporate sustainability: An investigation into the process of change in the pharmaceuticals industry	Blum-Kusterer, M. Hussain, S.S.	Business Strategy and The Environment.	2001
Four ecosystem principles for an industrial ecosystem	Korhonen, J.	Journal of Cleaner Production	2001
Dynamic capabilities: what are they?	Eisenhardt, K.M. – Martin, J.A.	Strategic Management Journal.	2000
Greening the innovation process	Foster, C. – Green, K.	Business Strategy and The Environment	2000

Market-driven versus driving markets	Jaworski, B.J. – Kohli, A.K. – Sahay, A.	Journal of the Academy of Marketing Science	2000
From market driven to market driving	Kumar, N. – Scheer, L. – Kotler, P.	European Management Journal	2000
Redefining innovation: eco-innovation research and the contribution from ecological economics.	Rennings, K.	Ecological Economics	2000
Redefining innovation: eco-innovation research and the contribution from ecological economics	Rennings, K.	Ecological Economics	2000
Determinants of environment product and process innovation	Cleff, T.- Rennings,K.	European Environment	1999
The relationship between environmental commitment and managerial perceptions of stakeholder importance	Henriques, I. – Sadorsky, P.	Academy of Management Journal	1999
Creating new market space	Kim, W.C. – Mauborgne, R.	Harvard Business Review	1999
Institutional logics and the historical contingency of power in organizations: Executive succession in the higher	Thornton, P.H. – Ocasio, W.	American Journal of Sociology	1999

education publishing industry			
The triple bottom line for 21st century business	Elkington,J.	Journal of Experimental Psychology.	1997
Institutionalized organizations: Formal structures as myth and ceremony	Meyer, J.W. – Rowan, B.	American Journal of Sociology	1997
The subtle art of learning through alliances	Crossan,M.M. – Inkpen, A.C.	Ivy Business Journal	1995
Toward a new conception of the environment-competitiveness relationship	Porter,M.E.- Van Der Linde,C.	The Journal of Economic Perspectives	1995
Technological trajectories and R&D for environmental innovation in UK firms. Futures	Green, K. - McMeekin, A. – Irwin, A.	The Journal of Policy, Planning and Futures Studies	1994
The “Austrian” school of strategy	Jacobson, R.	Academy of Management Review	1992
Firm resources and sustained competitive advantages	Barney, J.	Journal of Management	1991
Why do firms differ, and how does it matter?	Nelson, R.R.	Strategic Management Journal	1991

Absorptive capacity: A new perspective on learning and innovation	Cohen, W.M. – Levinthal,D.A.	Administrative Science Quarterly	1990
Sources, procedures, and microeconomic effects of innovation	Dosi, G.	Journal of Economic Literature	1988
Technological intensity: Concept and measurement	Palda,K.S.	Research Policy	1986
Technological discontinuities and organizational environments	Tushman, M. – Anderson, P.	Administrative Science Quarterly	1986
Innovation: Mapping the winds of creative destruction	Abernathy, W.J. - Clark, K.B.	Research Policy	1985
The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields	DiMaggio, P.J. – Powell, W.W.	American Sociological Review.	1983