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Master Thesis

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"The impact of international business on emerging markets' corporate environmental responsibility"

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Synopsis

The purpose of this thesis is to analyze the influence of MNCs in emerging markets corporate environmental responsibility policies. It is examined the case of DHL Supply Chain with India and China.

The reason for this research is to identify the key factors through Institutions, Resources and Corporate Environmental Responsibility that influence the emerging markets.

The thesis is composed of the chapters of Theoretical analysis, Methodological approach and Literature Review, as well as it is presented a Model framework which illustrates the implementation of CER into the market and provides a basic understanding of CER in emerging markets.

Moreover, in the Discussion chapter are developed the case study of DHL Supply Chain focusing on two specific emerging markets of India and China. In the analysis of the Discussion are examined the key factors of the influence of CER in the strategic planning of DHL Supply Chain, as well as the influence of CER polities in the two emerging markets.

In the end of the thesis future research and improvements of the current research are suggesting.

Preface

This report consists the Master Thesis developed by Dimitrios Zygolanis, Master student in the program “International Business Economics” of the “Economics and Business Administration” of Aalborg University. The report was elaborated during the semester period of February- June 2017.

I would like to express my gratitude to my semester supervisor Mohammad Bakhtiar Rana for his guidance and mentoring during the development of this Master Thesis. Also, I would like to express special thanks to all the professors and assistants of the Master program for sharing their knowledge and contribution in the development of the necessary background for the conduction of this Master Thesis.

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1. Introduction

Emerging markets are carriers of a vast portion of the world's GDP and are important business partners for corporations from western markets. Due to their high-speed of industrial development, the speed of their business development is outpacing the institutional progression, creating a significant carbon footprint. This is underlined by the so-called *catch-up effect*, which proves the assumption that poor countries can expand economically at a higher pace than developed countries, where the industrial development is mainly caused by exogenous impacts, not created through internal institutional revolution (Korotayev, 2014). This is a result of market conditions and underdeveloped institutional frames regarding corporate environmental responsibility (CER). Tackling the issue of the Asian market and their approach to corporate environmental responsibility is no longer solely a problem within their domestic markets, but the approaches used also reflect on Asia's international business partners as well.

Developing countries' approach towards corporate environmental responsibility is different from the EU market due to several reasons with different institutional development and business environment conditions, characterized by high-paced turbulent markets that are usually driven by cost-efficiency, short-term strategies, and quantity, being a few of them. As this thesis progresses, different aspects of the differences within the business environment and its impact on institutions are interpreted within the above-mentioned context.

As proven in the later chapters, the business environment in emerging markets is not in line with a pro-active approach towards corporate environmental responsibility and thus the institutional frame in those markets is compromised by lack of resources. CER is initially driven by economic benefits, followed by altruistic motives (Hart, 1995). This requires more resource commitment, which naturally comes with uncertainty, higher return on investment (ROI) and greater opposition towards the initial costs for the domestic companies. This phenomenon interplays with the character of institutions and its development, especially the social cognition.

One of the recent external drivers that have caused the EU market to shift towards a more comprehensive ideology regarding corporate environmental responsibility is customers and their purchase preferences, which tend to favor more "eco" ´-friendly companies that put great emphasis towards the treatment of their environment. In that sense, an emphasis on environmental responsibility can be seen as an investment into the company's brand name and their relationship to the public. So, the combination of market pressure from external stakeholders alongside with technological advancement and altruistic self-regulation creates a trend in "eco" design & thus a greater interest in corporate environmental responsibility in developed countries.

However, in developing countries, this is not the case and a lack of measures that enable for better corporate environmental responsibility in addition to their relatively worse financial and economic situations have created a barrier for development in the realm of environmental responsibility. Another important factor that plays an important role in CER deployment in developing markets is cultural cognition, reflected not only in corporate cultures but in individual perception of CER and ecology.

Due to the context in which developing markets operate, economic benefits from CER represent a larger and more important role than the CER benefits embedded in altruism (Dasgupta et al., 2000; Sindhi & Kumar, 2012) In other words; self-regulation must be initiated through cognitive understanding of the social and economic benefits of CER. The cultural difference in seeing ecology as an important business element needs to work mutually together with the regulatory institutional layer. Culture is also connected to education and knowledge, which is in comparison to EU lacking in its quality.

According to the literature, CER is driven not only by regulation and formal restriction but also pro-actively by the market drivers, stakeholders' pressure, and self-regulation. Formal institutional influence such as laws and regulations do not provide a sustainable developmental framework for corporate environmental responsibility alone. As such, a dichotomous or dual understanding of institutions provides a basis that any legal framework needs to be legitimized within a cognitive institutional context (market, culture) and vice versa.

As mentioned in the beginning of this chapter, the problem of underdeveloped corporate environmental responsibility in emerging markets cannot be blamed purely on those countries, especially when many of the multinational corporations outsource product manufacturing into those markets; exploit the cheap resources and benefit from the lack of regulations, resulting in institutional voids. On the other hand, there are examples of the positive influence of Multi-national corporations on the market environment and cognitive perception of CER leading into more pro-active CER measures and formal institutional development.

2. Problem Statement

One assumption is that multi-national corporations are playing a very positive role in spreading the global understanding of the importance of corporate environmental responsibility as well as bring capital to those countries that can change their business strategies and orientations from cost-driven to innovation and technology-driven. This assumption is promoted by the idea of spreading the corporate cultures across the world, which assumes that if the western Multi-national corporations are investing in CER, their subsidiaries, as well as local businesses in Asian markets, are following the same approach despite the underdeveloped institutions

Additionally, there are also proofs that western markets are vastly outsourcing their manufacturing outside their regions, which might cause benefits of ignoring the western countries' CER standard, leading to *outsourcing the carbon-footprint*. This concept is especially valid in instances where multi-national corporations have used outsourcing as a method to save costs, which are sometimes paid by exploiting natural resources and ignoring the consequential environmental impacts. This hypothesis can be also extended by saying that multi-national corporations are forcing a market to be more cost-oriented and follow only short-term strategies, which puts the pressure on business entities, resulting in an ignorance of corporate environmental responsibility due to its contextual inefficiency and redundancy. In general, these markets are cost-driven, turbulent, very competitive and highly saturated with a visible lack of enforced regulations. Thus, local customers have low negotiating power and the cultural background does not promote corporate environmental responsibility.

International corporations are vastly connected to those markets due to its cheap resources, technological development trends, innovation processes (frugal innovations, reverse-innovation) as well as market opportunities because of developing domestic market purchase power (Summerfield, 2015).

Before discussing the specific research, questions and added value of this paper, it is important to understand the context in which this work is embedded.

Our research paper specifically investigates the interactions between multi-national corporations from EU market and Asian markets, especially China and India. The reason behind this choice is the significant development of corporate environmental responsibility in Europe, which has a strong support in both social and economic roots. In comparison to the US market, European corporations are more regulated and external forces, such as customers and business partners, have a significant impact on companies' social and environmental responsibility (Neumayer & Perkins, 2004).

Regarding the emerging markets, our research specifically targets China and India as two biggest Asian markets. Both of these serve the perfect purpose for demonstrating our hypothesis and findings as they are rapidly developing and are hugely popular amongst European companies for foreign direct investments. Another reason for working particularly with these markets is their relative stable political status, which creates space for more objective evaluation.

Corporate environmental responsibility of an emerging market needs to be understood as the individual responsibility of each company that is doing business in emerging markets. CER of emerging markets is seen as the institutional development of CER, creating a working and legitimate cognitive and regulatory CER framework, leading to pro-active behavior of market actors. This naturally leads to a direct positive impact on the natural environment.

This paper does not investigate the impact of multi-national corporations on the environment but on the development of corporate environmental responsibility of the market, thus the institutional development of a CER framework. Multi-national corporations can significantly influence the development of CER approach of the market through resource and capital effect, leading to institutional influence, especially impacting the cognitive pillar, which legitimizes within the formal institutional frame and gradually provides a base for self-regulation.

The institutions of emerging markets in terms of CER are investigated in this research. Institutions are understood as a dynamic dichotomous system, in which cognitive and formal regulatory pillar interact with each other, and therefore formal institutions need to be understood holistically.

The last element that frames this research is the understanding of the multi-national corporations. Multi-national corporations are seen as legal entities with centralized executive management in Europe interacting with emerging markets, either through providing their products/services to the local markets or using the markets as outsourcing havens for eliminating transaction costs. These two types of companies' international activities have different influences on emerging markets' CER, which is discussed later.

Therefore, the following research questions are formulated.

It is important to more thoroughly understand the contextual institutional and business environment differences between EU and developing markets and identify the causes of its CER underdevelopment as well as its developing trends. The following questions that need to be answered are regarding the extent to which international business contributes to this phenomenon, what role Multi-national corporations play in today's situation and what effects it brings. The further investigation answers the question of how exactly Multi-national corporations impacts institutional frames of CER in those countries.

We believe that this research provides a holistic and objective understanding of the dynamics of international influence on the corporate environmental responsibility of emerging markets, shedding lights into the dichotomous understanding of institutions and their contextual relations to Multi-national corporations' transnational business activities in emerging markets.

This research paper provides and extension to the *Importance of Diaspora in International Business* research paper, where we introduced the framework for understanding the institutions and its relation to actors' behavior in the international context. Our current research proves the validity of previously developed framework and justifies the assumptions of its universal applicability.

Later in literature review part, the value of this work is justified within the context of the currently available literature research gap is explained.

Our assumptions are later demonstrated on a case study of DHL Supply Chain.

3. Methodology

This chapter discusses the theory of science and the positioning of this paper within. Thorough the process of explaining specific areas of the philosophy of science, we refer to the works of Burrell and Morgan, Abnor and Bjarke and John Kuada as these authors provide us with a complete picture of the basic fundamentals of this agenda.

The following paragraphs are split into several sub-chapters, starting with defining and positioning within the main two dimensions of the philosophy of science; (1) *objective* and (2) *subjective.* Each of these main paradigms can be further described through four sub-dimensions, defining the (1) *ontology*, (2) *epistemology*, (3) *human nature* and (4) *methodological nature* of the research with respect to the two main dimensions.

The further investigation explores the work of Burrell and Morgan and their different two-dimensional paradigms, namely the dimension of (1) *regulation* and (2) *radical change.* Subsequently, combining the dimensions of *subjectivism vs. objectivism* and *regulations vs. radical change*, Burrell and Morgan provide us with the matrix of 4 paradigms and their description of the research positioning.

The third part of the theory of science explores the difference between deductive and inductive research, which helps us to understand the logical framework for acquiring and generating the knowledge.

The last chapter ponders the question of qualitative and quantitative research, which enhances the overall picture of the applied methodology, shedding light on the character of acquired information and its usage for reasoning.

a. Objectivism vs. Subjectivism

Beginning with the most general differentiation, the question of the objective and subjective dimension needs to be answered in relation to our research topic. The following arguments mainly reflect on the work of Burrell and Morgan from 1979.

According to their research, defining all 4 sub-dimensions of the theory of science (ontology, epistemology, human nature and methodological nature) within the spectrum of subjectivism and objectivism helps the author to comprehend the meta-paradigm of the conducted research. This overall picture serves as a blueprint from a complete description of the reality in which author operates and creates an image of the system (society), its elements and relations between them in regard to the environment embeddedness. Essentially, *objectivism vs. subjectivism* serves as a spectrum in which sub-clusters (sub-dimension) describing societal reality, knowledge acquiring, determinism of actors behavior and the nature of used methods can be positioned (Burrell & Morgan, 1979).

i. Ontology

The broader understanding of the word Ontology, with the Greek root, ties back to the beginning of ancient philosophies and define the nature of the reality and human existence. This field of study explains the validity of social reality in different and discusses its applicability, relevance, dependency and conceptuality (Saunders et al., 2009).

According to the work of Burrell and Morgan, ontology can be in regards to its meta-paradigmatic differentiation perceived through two different views; (1) *Nominalism* and (2) *Realism.*

The realistic view defines the reality as non-socially constructed system; therefore reality is independent of external factors. In other words, the reality is constructed from non-contextual elements and rules, which defines it as a concept of universal truth, applicable in any context with the same relevance and validity. According to this view, only one unique independent reality exists and therefore realism reflects on the objectivism (Burrell & Morgan, 1979).

Nominalism presents the opposite. Reality is subjective and perceived through multiple angles, differentiating in its relevance and applicability based on the context. Reality is a social construct and is created as a result of a dynamic system of interactions between individuals and the environment. Reality does not provide authors' with fixed societal structure, which means that deeper contextual and mostly qualitative understating of reality is needed in order to define its contextual relevance (Fast & Clark, 1998).

Our research of emerging markets' CER and influence of MNCs tries to describe a generally applicable framework for understanding the position of MNCs in the context of low environmental responsibility of market actors in developing countries. Therefore, despite the contextual notion of the specific company, market, and institutional development, the work follows the idea of universal understanding of reality, the thus predictability of social interactions. The reality in which we operate is not dynamic and assumes the solid set-up of social parameters. Actors behavior is perceived as deterministic and predictable based on the specific *rules of the game*.

ii. Epistemology

Epistemology enhances the ontology by describing the author's interaction with the reality and specifically describing his/her perception of the knowledge acquisition and creation. In other words, epistemology explains the interaction between the researcher who is trying to obtain a certain data and the information (knowledge) itself, defining author's position in regards to the context of the knowledge.

To illustrate the topic in more depth, we follow the work of Burrel and Morgan, which defined epistemology through two different dimensions, each positioning itself on a different side of spectrum of *subjectivism* and *objectivism*. According to their work, epistemology can be either (1) *positivistic* or (2) *anti-positivistic* (Burrell & Morgan, 1979).

Positivism refers to an *external observer*. The researcher is perceived as a third (3rd) party spectator, who is not involved in the social context of the investigated system. In terms of knowledge acquisition, this provides the researcher with an objective perspective on the research, yet he/she does not have the direct contact with the subject of the research and is not able to position him/herself as an internal actor.

The anti-positivism describes the other side of the spectrum, perceiving knowledge acquisition as an objective, contextual matter. The researcher is part of the socially-constructed system and is directly involved with the agenda through empirical experience. This stream of thinking assumes that the only way to understand a certain phenomenon is to be part of the system. This thinking follows subjectivism and prefers qualitative methodology.

This research remains within the positivistic spectrum. Following the assumptions made in the Ontology chapter, our research defines the concept of emerging market' CER and the role of MNCs through static and non-contextual framework. This objective ontology ties to our objective perception of knowledge acquisition. The generality and universal applicability of our research require researchers to be independent and remain objective in regards to the knowledge acquisition. This model was previously applied in the context of *Diaspora in International Business Activities* and now serves as a framework for investigating the relations between MNCs and emerging markets institutions and actors behavior in the context of environmental responsibility. We believe that this provides a solid and legitimate proof of our position within the dimension of epistemology and justifies the need for positivistic approach.

iii. Human nature

The element of human nature in philosophy of science discusses the interaction of actors with each other and the environment in which they operate. In the previous chapter was discussed the question of *objective* and *subjective* reality and researcher's position in relation to the knowledge acquisition. The *Human nature* topic provides another dimension to this area by exploring the actors' reactions to the changes in the reality (society). In relation to the *subjective vs. objective* meta-paradigms, Burrell and Morgan distinguish between (1) *deterministic* and (2) *voluntary* human nature.

Determinism describes assumptions that the nature of human beings' behavior and therefore choice-making can be precisely determined at any time; following the ontology of realism in which system (reality) is a non-socially constructed phenomenon and actors are only respondents to the set-up of behavioral rules. This approach mostly assumes the involvement of more tangible and quantifiable description of the reality, which serves as a framework for determining the human behavior without a specific context (Burrell & Morgan, 1979).

Voluntarism represents the subjective dimension, in which actors are not only constructing their own realities. Actors' actions and choice-making is contextual and differs from each and every case based on the objective reality in which they are embedded. This approach usually requires anti-positivistic epistemology and more qualitative and descriptive methodology (Burrell & Morgan, 1979).

For the purpose of our research, deterministic nature of human behavior is necessary. Our research investigates behavioral responding (environmental responsibility) of local market actors to the business environment and institutions, which are assumed to be affected by international business. The overall model and all of its elements and relations are designed to provide a general understanding of what drives the environmental responsibility and to what extent it is impacted by external environment (international business). Our model and further discussion provide a generally applicable reasoning for understanding what determines emerging local actors' perception and implementation of CER measures. Therefore, it is necessary to treat the system (framework) as an objective non-contextual system in which actors do not shape the character of the reality, but only respond to the changes of the parameters in the system.

iv. Methodological nature

The last sub-dimension describes the overall methodological approach, providing an image of what are the key assumptions in regards to the usage of methods, particularly data collection and methods of knowledge generating and reasoning. The specific elements of methodology are further discussed in the later chapters. This chapter serves as a paradigmatic overview of the character and style in which used research methods are carried.

Burrell and Morgan defined two types of the characters of the used methods; (1) *Nomothetic* and (2) *Ideographic* approach. Each of them relates to the type of either subjective or objective dimension, yet the usage of methods and the nature of methodology is often related to the context of the research, its limitations, and character of collected data (Burrell & Morgan, 1979).

Nomothetic approach ties usually to the objectivism, following more deductive and quantifiable methods of conducting the research. On the other side, ideographic nature of methodology highlights the interpretivism and is usually common for subjective ontology and more qualitative and inductive research. Ideographic approach emphasizes symbols, interpretation, context, while nomothetic highlights more static, determinable and non-contextual way of methodology. Ideographic character emphasizes the need for abstracting from the quantifiable character of the information and assigning them another layer of relevance through qualitative description (Kuada, 2012).

Our research follows objective ontology, epistemology and assumes determinable actors' behavior, which forces the research to follow purely quantifiable proofs of hypothesis, following deductive approach and quantitative data collection (David Martin et al., 2014). To a certain extend this assumption reflect on our research, yet some of the collected data need to be put into the context and require an interpretation. Due to the lack of resources and very empirical-based research topic, some of the collected data and assumption based upon them need to be treated in the specific context of a specific company or market in which our model is demonstrated. This does not mean that the relevance of the model without a context is questionable, but rather that for a precise and more determinable application of our model, qualitative data collection (observations, case-studies, company's characteristics) are required. Furthermore, MNCs' and market actors' non-quantifiable characteristic, such as resource commitment, R&D strategies, and risk perception are involved in the overall evaluation of the model embedded in a context (DHL Supply Chain in Asian markets – case study).

The combination of both types of methodological nature are necessary for fully discuss the relevance of our research, therefore both ideographic and nomothetic methodology is required. The further justification of the choice of our methods is provided in the following Research Methods chapter.

b. Regulations vs. Radical change

To introduce another way of looking at methodological dimensions, we introduce the work of Dahrendorf and Lockwood, further developed by Burrell and Morgan. According to this stream of thinking, it is not only meta-paradigms of *objectivism* and *subjectivism* that defines the character of the research, but also parallel dimensions of *regulation* and *radical change*.

This typology does not interfere with the previous framework, but rather provide another extended view, which focuses on societal order, thus social aspects of actors' behavior. The dimension of regulation defines the society from the point of view of social order and entropy, while the realm of radical change sees the society as constantly changing system balancing out the conflicts in the system. Therefore, as discussed later in this chapter, it is possible to combine both types of dimensions in order to understand the research paradigms in a greater depth (Burrel & Morgan, 1979).

The dimension of regulation is often assigned to the objectivism due to its similar root assumptions about the social environment. Society is understood as very coherent and static system, and therefore the behavior of the actors can be determined. Dimension of regulation assumes that reality can be described with rules and regulations due to its non-dynamic nature. This stream of thinking can be described as very functionalistic and heavily relies on the assumption of complete stability and integrity of the social status quo (Burrel & Morgan, 1979).

The dimension of radical change creates naturally and opposition to the static understanding of reality. Society is perceived as non-structured, unstable and constantly changing system. This resembles reality of social systems in a better way, yet it's difficult to describe and predict. Actors are, according to this view, partially or fully aware of the system around them, which restrict them in their desired actions, therefore the actors are trying to influence and change the social order, leading to *conflicts, change, contradiction* and *disintegration* (Burrell & Morgan, 1979).

The following figure describes an overview of both dimensions (**figure 1**).

Dimensions	
Regulation	**Radical change**
Stability	*Change*
Integration	*Structural conflict*
Functional coordination	*Disintegration*
Concensus	*Coercion*
The status Quo	*Modes of domination*
Social order	*Contradition*
Social intergration	*Emancipation*

FIGURE 1: REGULATION VS. RADICAL CHANGE SOURCE: BURRELL & MORGAN (1979)

The following chapter discusses the matrix created by combining 2 different typologies of meta-dimensions of philosophy of science by Burrell and Morgan, leading to the creation of 4 different paradigms.

c. Paradigms of Burrell and Morgan

According to John Kuada (2012), the word paradigm refers to an understanding of the construction of the social reality, the knowledge acquisition about the investigated reality, actors within the system and their interactions. In other words, the combination of understanding of ontology, epistemology, nature of actors' behavior and used research methods should give the researcher a unified picture of their research position, called a research paradigm (Kuada, 2012).

Burrell and Morgan developed two different types of research typologies and then combined them together to develop the 4 different paradigms that provide authors with a complete picture of the reality perception societal structure and area (**figure 2**).

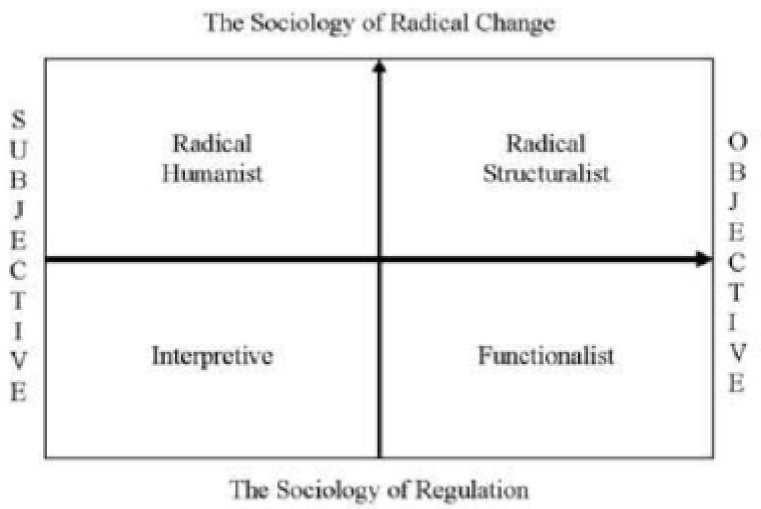


FIGURE 2: PARADIGMS, SOURCE: BURRELL & MORGAN (1979)

i. Radical Humanist

This paradigm is a combination of subjectivism and sociology of radical change. A Radical Humanist perceives society as socially constructed system in which actors are fully emancipated and conscious about their reality, therefore not being anyhow restricted by the social construct of their environment. Individuals deny rules of determinism and objective reality by creating structural conflicts and contradictions, constantly changing and shaping the environment (Burrell & Morgan, 1979).

ii. Radical Structuralist

Radical Structuralist combines objective ontological view with the sociology of radical change. This means the behavior of individuals is contextual and emancipated actors are influencing the dynamism of the objective reality. The constant change and structural conflicts are not denying the authors realistic understanding of reality, yet this thinking process requires investigating relations between actors and perceiving the objective reality as dynamic and contextual (Burrell & Morgan, 1979).

iii. Interpretive

According to this paradigm, the societal order is static but contextual in its ontological nature. The investigation of the research topic needs to be treated contextually, requiring interpretation of specific context, in which societal structure is static and determinable. Actors' behavior is treated as stable and coordinated with different implications and outcomes based on context (Burrell & Morgan, 1979).

iv. Functionalist

Functionalism describes the world through realistic ontology and the society of regulations, assuming that the objective reality creates a regulated and static societal environment in which individuals only respond to the system without being able to shape or change the set of rules that govern the environment. This paradigm does not require the understanding of context and heavily relies on the pre-defined artificial set-up of the reality (Burrell & Morgan, 1979).

Our research position

This research is positioned based on the paradigm of radical structuralism. The work follows realistic ontological assumptions about reality while understanding the societal order as rather contextual. Despite that the behavior of actors is determinable as a result of a solid and stable system of reality, the contextual investigation of the relationship between actors and environment is required. The research perceives the society as unnecessarily dynamic and constantly changing throughout the time and space.

The conceptual model serves as a blueprint of static unified reality in which research is positioned, following the *rules of the game* of artificially created workspace for evaluation of the importance of MNCs in the context of the inferior development of corporate environmental responsibility in emerging markets. The static and non-contextual societal order would not fit the reality of fast development of the institutional and socio-economic environment of these markets. The need to understand the societal context and the dynamism of specific society enable us to understand the dynamics of the evolution of CER in those markets. The actor's behavior is to a great extent determinable, yet individuals are emancipated and their complex and contextual interactions with the environment cannot be ignored in order to fully picture the reality of this research area.

This particular phenomenon and the reason why this research needs to be treated through radical structuralism is portrayed on the case study of DHL Supply Chain, where the context of the company and specific market does provide and extensive knowledge of otherwise static conceptual model, which provides us with a reasonable framework for initial general and non-contextual assumptions.

Research methods

Our objective positioning within most of the dimensions should reflect on very nomothetic methodology; deductive research and quantitative data usage. The framework we developed and the hypothesis and drawn assumption require follows deductive reasoning and combine both quantitative and qualitative data usage approach. The following chapter discusses the general description of dimensions of research methods and justifies the positioning of our research within them.

d. Inductive vs. Deductive research methods

The theory of research reasoning distinguishes mainly between two approaches, namely (1) *Inductive* and (2) *Deductive* reasoning. Some of the authors mention the 3rd sub-dimension, called *Abducting*, which combines both above-mentioned types (Alina Brandford, 2015). The general difference between those approaches is in the way new knowledge is generated and how reasoning is carried across the research. To a greater extent, research reasoning is dependent on the area and type of the research.

Inductive approach is characterized by creating a new theory based on empirical data. Essentially, starting from observations and by proving the assumed hypothesis, creating a new independent theory or framework describing certain observed phenomenon. This is typical for a less explored area without yet proven empirical and quantifiable data (Alina Brandford, 2015).

Deductive research is characterized by starting from general and concluding newly generated specific findings based on utilizing currently available theories. The deductive reasoning usually expands on an already explored area of knowledge or combines different areas of research in order to enhance the current understanding of a certain phenomenon. Research that follows deductive reasoning sequentially processes unrefined general knowledge into more refined and specific set of structured hypotheses (Alina Brandford, 2015).

Our current research follows deductive reasoning approach. Starting from the literature review and identifying the literature gap and available theories in the area of environmental responsibility, progressing into projecting the acquired knowledge into the framework based on previous research regarding international business actors and institutions, adjusted by newly acquired CER-related knowledge. Further, the hypothesis and assumptions drawn from the theories are discussed and demonstrated in a case of DHL Supply Chain, contextually proving the relevance and applicability of our model.

Our research is, therefore, deducting from already existing academic knowledge, creating a framework and assumptions for explaining a specific research gap in the area of corporate environmental responsibility and international business influence.

e. Quantitative vs. Qualitative Research

Differentiation between quantitative and qualitative research approach discuss the issue of perceiving acquired knowledge, its character, and validity in the research context. Both approaches differ from each other in their understanding of the relevance of different types of available knowledge, collecting and processing of the information and in the way these data are validated and used in order to justify the outcomes of the research. These approaches provide authors with a framework for understanding the role of the acquired knowledge in the context of the research in order to maintain the integrity of researchers' reasoning. Both research methods are closely related to the meta-paradigms upon which the research is created (Bryman & Bell, 2011).

Qualitative research put emphasis on explicit knowledge, therefore perceives knowledge as relevant only if interpreted in the specific context. This does not necessarily mean that the outcome of qualitative research is not generally applicable, but rather that the proving of research hypotheses is based on decoding and composing the understanding of certain research in the context. This type of research method focuses on investigating the contextual merit of the researched phenomena and therefore requires interpretation of collected data. Essentially, we can understand the qualitative research methods as processes of data collections and interpretations aiming at rather understanding and describing the dynamism of the reality than composing non-contextual assumptions about the static system (Bryman &

Bell, 2011). Researchers following qualitative methods are using unstructured rich-in-depth data, usually acquired from empirical cases studies, interviews, observations and experience from direct involvement with researched environment and actors (Miles & Huberman, 2014).

Qualitative research is criticized for its weak and open justifications of the research outcomes. This is to a great extent related to the investigated area, typical for social sciences, where a big amount of contextual aspects impacts a certain phenomenon. Qualitative research is therefore limited by the contextually of social systems, which leads to lack of determinable and measurable answers (Bryman & Bell, 2011).

Quantitative research, on the other hand, puts the emphasis on hard reliable non-contextual data. This method of perceiving information fits the objective researcher, where the outcomes of the research do not require contextual interpretation of the data (Quinn, 2002). Due to the non-contextual character of data, measuring and quantifying the information favors data collection techniques, such as interviews, questionnaires, and statistics, using information from financial results, performance indicators, market statistics and more. This approach does not require any additional layer of context or interpretation of collected data, applicable in any context. Quantitative research method ties back to the objective meta-paradigm and fits deductive reasoning. By using quantifiable and non-contextual data for justifying the hypotheses, the researcher needs to understand the reality as a set of limited amount of artificially constructed rules that guide the behavior of the actors. In other words, the researcher needs to maintain the position of 3rd party objective observer that creates the environment in which he investigates his/her research questions (Bryman & Bell, 2011).

Quantitative research is mainly criticized for its lack of accuracy and for its generalization of complex phenomena based on artificial environment set-ups. Quantitative research does not reflect the changes in society and investigates the system from a static point of view, assigning the same value to all collected information (Bryman & Bell, 2011).

The following figure (3) illustrates the main differences in both research methods.

Quantitative	Qualitative
Numbers	Words
Point of view of researcher	Point of view of participants
Theory testing	Theory emergent
Researcher distant	Researcher close
Static	Process
Structured	Unstructured
Generalization	Contextual understanding
Hard reliable data	Rich deep data
Macro	Micro
Behavior	Meaning
Artificial settings	Natural settings

FIGURE 3: QUANTITATIVE VS. QUALITATIVE RESEARCH METHOD, SOURCE: BRYMAN & BELL (2011)

The following paragraphs discuss the positioning of our research in relation to the both methods.

Our research tries to answer the question of the importance and relevance of international business actors in the context of pro-active adoption of CER measures by emerging markets local actors. The research investigates the firm specific factors and different market business approaches of MNC in developing countries and its influence on the set-up of cognitive and formal institutional frames of these markets, which as the model assumes, should result in the changes in the local market's CER movements. The research investigates the current static situation of environmental responsibility in Asian markets, identifies the root cause of its character and investigates the current impact of MNCs on the *status quo*. The last chapter of the discussion provides a set of solutions helping to enhance the CER in those markets by illustrating the positive outcome of the most suitable set-up of the moderators in our model. The separated part of the discussion is dedicated to the contextual case study of DHL Supply Chain in Asian markets.

The above mention description of the research implies the following objectivism as the topic of CER remains to be perceived as non-contextual and the outcomes can be applied to the different company and market context. Therefore, it is proven that the research evaluates the research area from the macro perspective, by generalizing the research findings. The research is despite its contextual character (different outcomes in different cases) still perceived from the point of view of the researcher and is based purely on the artificial setting of the developed framework. In general, the research does not imply that the context in which this model can be applied does not matter, but rather that the model provides an only general understanding of the phenomena and provides a guidance for analyzing different cases, following our general and non-contextual model. We demonstrate the thinking process in the case of DHL Supply Chain, which will require contextual thinking, yet based on the objective framework.

Our work requires hard-reliable non-contextual data for composing the general assumptions of our model, followed by a combination of quantitative and more contextual qualitative analysis of particular elements of the case study of DHL Supply Chain.

The data collection for developing the framework and proving its objective relevance consists of using objective theoretical and empirical knowledge regarding data from the markets (behavioral trends, business performance, environmental responsibility statistics, business models, strategies and more), hard reliable data regarding institutional development (specifically construction of regulatory pillar) and lastly theoretical data about MNCs' internal and external business dynamics (resources, capital structures, business models, strategies and more).

The analysis of the case study of DHL SC requires more empirical and contextual deep-dive into the elements of the model in order to enhance its relevance and illustrate the dynamics of the context of specific company and market. This requires interpretation of current and future market of DHL, current and future business performance, internal strategies, policies, company's culture, risk perception, resource commitment and other DHL specific elements. Therefore qualitative analysis and data collection are needed, specifically sense-making of internal documents and observations portraying the relevance of the above-mentioned factors.

The core of the research and its added value of the presented framework still remain within the objective ontology and epistemology, assuming determinable actors behavior based on quantifiable and universally valid data.

4. Literature review

The following chapter describes the process of acquiring knowledge through reviewing available literature and later discusses the character of the current research of corporate environmental responsibility in emerging markets and defines the research gap.

Literature review refers to a process of scanning and sorting available literature knowledge, exploring and identifying the explored research areas and identifying the research gaps in order to form and answer the research questions. Therefore, the role of the literature review is to provide the researcher with enough information about underlying assumptions and paradigms of the conducted researches, used research methodology and theories as well as reveal the importance and relevance of seminal research papers (Tranfield et al., 2003).

The secondary role of reviewing literature is to provide authors with enough data for synthesizing and generalizing the overall knowledge concepts and root assumptions about the research area, providing the researcher with a base for relevant investigation of the research questions (Petticrew & Roberts, 2006).

Our research area is characterized as a relatively new topic, as environmental responsibility gained popularity in the past few decades. Therefore, the research topic misses a common typology and understanding of the dynamics and evolution throughout the time.

The research is conducted deductively, absorbing already utilized knowledge in order to understand a specific area of interest, yet the empirical case-based studies help us to strengthen some of the assumptions, especially in the area of relations between multi-national corporations and institutional development of corporate environmental responsibility.

The specific character of the research, its relatively unexplored character and dynamic development requires a systematic and structured literature review, characterized by sequential and logical process of reviewing the literature, typically consisting of 3 main stages; (1) *planning*, (2) *conducting* and (3) *reporting* (Tranfield et al., 2003). The complete sequence of the partial processes is illustrated in the following figure (figure 4).

Stage	Processes	
Planning the review	1	*Identification of the review needs*
	2	*Preparation of review proposal*
	3	*Development review protocol*
Conducting the review	4	*Identification of research*
	5	*Selection of studies*
	6	*Quality assessment*
	7	*Data extraction*
	8	*Data synthesis*
Reporting and dissemination	9	*Reporting*
	10	*Evidence implementation*

FIGURE 4: SYSTEMATIC LITERATURE REVIEW BY TRANSFIELD, SOURCE: TRANSFIELD ET AL., 2003

Planning the review, **stage (1)**, consist of identifying, preparing and developing the literature research process, which should serve as a base for retrieving the most reliable and relevant information from the literature in order to conduct the research. The requirements for the research are to identify the general understanding of reverse innovation in international business context, identify the current scope of research in this area, sort the different streams of researches and used theories and finally identify the research gap. The following part consists of developing the research protocol. The area of research and its limitations, we screen the available pools of academic publications and focusing on the *ABI/INFORM Complete* database, providing us with full access to the 28 sub-sources of the highest ranked and most relevant business journals (Transfield et al. 2003).

The second **stage (2)** consists of several layers of refining and filtering the selection of the research articles. The initial and most crucial part of this stage is the selection of the searching keywords that define the pool of research papers for further scanning. For the purpose of our research, we define the following keywords; (1) *corporate environmental responsibility* OR *CER* (2) *emerging markets* OR *developing countries* and (3) *international business*. The first scanning based on the keywords identified 1,698 articles. The further filtering consists of focusing on peer-reviewed articles in the English language published after the year 2000. This is justified by the need for articles of better quality and relevancy, capturing the dynamics of corporate environmental responsibility of the last few decades, thus only the most recent and peer-reviewed sources are considered for the further analysis. This quality assessment decreased the initial amount of sources to 344 articles. The last selection process consists of the manual screening process, which enables us to shrink relevant literature articles to 21 most relevant research papers. The process of data extraction and analysis help us to identify other seminal papers based on the authors' references. Including these articles, we reached approximately 26 articles that represent the most reliable ad relevant sources regarding the research area of our concern.

The last **stage (3)** of conducting the literature review consist of identified information analysis and synthesis, followed by reporting on our finding and pointing out the missing literature gaps.

Systematic literature research identified essentially 2 types of research papers; one that focus its attention to the generalization of corporate environmental responsibility understanding in emerging markets and a second type, which contextually explores the interactions between market actors, market environment, and development of CER in emerging markets. Both of these streams of thinking are vital for developing our framework, which requires a general and solid understanding of CER as well as interoperates the role of multi-national corporations in the *equation*, which requires empirical knowledge.

Conceptual theoretical papers follow deductive research methods, focusing on quantifiable and theoretical proofs of the assumptions. The determinism of actors' behavior and non-contextual ontological understanding are typical for these researches.

On the other hand, the case-based studies provide us with a dynamic understanding of multi-national corporations' involvement in emerging markets and its impact on the development of CER. These empirical context-based studies, underlying by qualitative interpretive data analysis, combined with theoretical studies help us to conceptualize the role of these companies in emerging markets.

The literature review identifies the use of the theories in this research area. The search focus, as well as the nature of the topic, naturally highlights the importance of Institutional theories as institutions are the crucial part of our research. Another vastly referred theory is regarding the transaction cost, as corporate environmental responsibility is highly depended on the costs and benefits related to it (Hart, 1995; Jansson et al., 2000). The topic of environmental responsibility and international business is to a great extent related to the idea of resource value and especially the added value of the knowledge, which shapes the market environment and gradually influence the institutional development (Sindhi & Kumar, 2012; Bansal & Roth, 2000; Christmann, 2000).

The literature review revealed two different dimensions of literature, the case-study based and more conceptual and theoretical researches. One of the research gaps we identified is the lack of concepts for understanding the relation between external actors and CER development, therefore the following paragraph mainly illustrates the concepts regarding the general understanding of corporate environmental responsibility in emerging markets.

The literature around corporate environmental responsibility is yet not unified under general concepts and seminal researches, yet many authors investigate this phenomenon and it's current and future development in emerging markets.

According to Dasgupta (2000), emerging markets are highly dependent on economic benefits, which directly impact the perception of corporate environmental responsibility. This stream of thoughts was investigated by many authors, such as Zarsky (2002), Agyeman (2002), Kusku (2007). According to their literature, emerging markets needs to progress through several stages of economic development in order to be in a position to legitimize and implement the environmental regulation. This understanding of CER highlights the connection between the market/country economy and legislation. The main focus of these authors is on the *Cost of compliance*; therefore discuss the balance between the benefits of CER and CER related transaction costs.

King (1995), Porter & Linde, 1995, Friedman (1970) as well as Chirstmann (2000) investigated the positive impact of CER measures and regulations on the business environment. According to their studies, CER pro-active adoption can offset the cost of compliance even in emerging markets. On the other hand, Dasgusta (1997), Berchicii and King (2007), Fatma Küskü (2007) mostly argue that emerging markets are not in the position to benefit from the CER regulation and that their socio-economic context reflects on the internal and external business environment.

Another point of view discusses the pro-active environmental responsibility as it is seen as the highest level of environmental awareness. Hart (1995), Maxwell et al., (2000) or Kusku (2007) investigated the evolution stages and factors that influence the pro-active adoption of CER practices, without forcing market actors to comply with the regulations. Part of this area of research goes beyond the regulation framework and focus on understanding the pro-active CER measures as an outcome of not only regulations, market forces but also from the point of altruism, self-regulations (Barnett & King, 2006; Teubner, 1983) and external stakeholders (customers) influence (Waddock et al., 2003, Anton et al., 2004).

Some of the authors expanded on the exogenous understanding of CER pro-active motivation and tried to conceptualize the understandings of internal company’s factors that define the CER approach (Reinhardt, 1998 Sadorsky (1996). According to Reinhardt, 1998, CER adoption is also dependent on the type of industry, value chain governance as well as the type of business interaction with the emerging market. Yang and Zhou (2005) investigate the importance of learning capacity and firm's environmental strategy orientation. Another study conducted by Ramus and Steger (2002) argues that all the internal factors are always influenced by the top management willingness and commitment to adopt CER measures. This stream of research is particularly important in emerging markets, where internal capital and resource structure of the company, to a great, extend, impacting the choice of environmental responsibility.

Finally, we address the research gap and discuss the relevance of our research.

Literature review revealed that authors mainly focus their attention towards the understanding of the relationship between corporate environmental responsibility and the market environment without focusing on the institutions, which as we believe play the role of a facilitator between the CER measures' adoptions and the socio-economic background. Our research is trying to capture the influence of market environment on the formal and informal institutions and secondary investigate the impact of MNCs' business activities on the social and economic environment of the market, leading to the institutional change.

Furthermore, we believe that literature is lacking a holistic understanding of the role of external influences on the institutional development of CER and perception and adoption of CER measures by market actors. Our research captures this area through closely analyzing MNCs' interaction with these markets.

Lastly, the literature review shows the lack of cultural understanding of CER on a more insightful level. Our research perceives institutions as a dichotomous phenomenon, which means that soft organs and hard-organs of the institutions are complementary to each other and are constantly interacting, thus they cannot be understood as autonomous concepts.

5. Theories

In the following chapter, we will present the theoretical perspective of our research.

a. Institutional Theory

While there exist different aspects of institutional theory and different approaches within this broad theory, the core remains the same - it seeks to understand the interplay between authoritative guidelines and behavior. It includes the works of prominent academics such as Philip Selznick (1948), Richard Scott (1995), Dimaggio and Walter (1991), and Suchman (1995) among others. This theory consists of a pool of research that stems from fields such as sociology, psychology, organizational studies. Using a combination of one or more of these fields, researchers believe they are able to better understand the construction and the dictating actors within a society.

As the research of institutions can be applied and utilized in several different contexts, we focus on institutions that largely affect the realms of business and more specifically, environmentally sustainable business practices.

i. History/Aspects of institutional theory

Traditionally there are two trends or streams in institutional theory - Old or Historical Institutionalism and New Institutionalism. Their separation depends on their focuses, Historical Institutionalism is economically and more formally based, and New Institutionalism is more concerned with the social contexts and the informal guiding principles.

Largely inspired by laws and formal regulations, the stream of historical institutionalism includes the works of North (1990), Williamson (1985), Blyther (1997) and is based on the notion of the state under a Marxist belief. During its development, research which subscribed to this approach were concerned only with the capital state as was common with the neo-classical economic perspective in play at the time. Through the use of narrative analysis, "formal political institutions were found to explain various discrepancies in political economic issues. However, criticism of this school of thought became apparent as researchers realized is "too normative and narrow." Historical institutionalism offers a perspective that seeks to understand how "political actors have shaped and altered the outcomes within a political economy. While it focuses on formal governmental institutions, it ignores the role of what non-formal institutions play in governance and as such, the ideology behind new institutionalism stems from this gap. Where historical intuitionalism offers a description of behavior, new institutionalism offers a complete explanation of what caused an outcome to occur.

As mentioned previously, New Institutionalism is born from a gap in the historical institutionalism thinking. However, instead of focusing solely on formal institutions, it brings into account that informal "norms, procedures, organizations matter in economic performance and political outcomes" and it operates under the belief that the entire context of an entity's being must be incorporated into their actions or decision-making process. New Institutionalism seeks to provide a cumulative understanding of what may have occurred.

Historical and New Institutionalism in Business

As historical intuitionalism is focused more on the formal institutions, the way it employed in business research is similar to the oft-criticized narrow, normative perspective it provides. Researchers ascribing to this belief often see present institutions as "an exogenous variable that" hinders the activities of the firm (Rana, 2015.) They do not consider that institutions can be both internal and external to the firm, nor that they – institutions – can also benefit the firm in addition to hindering it. As is a common critique of historical institutions, it is too narrow. Therefore, we follow the ideas of Dimaggio and Powell (1983) and Scott (2008) that business activities are implanted in a societal context encompassing aspects both regulative and cultural cognitive institutions (Rana, 2015).

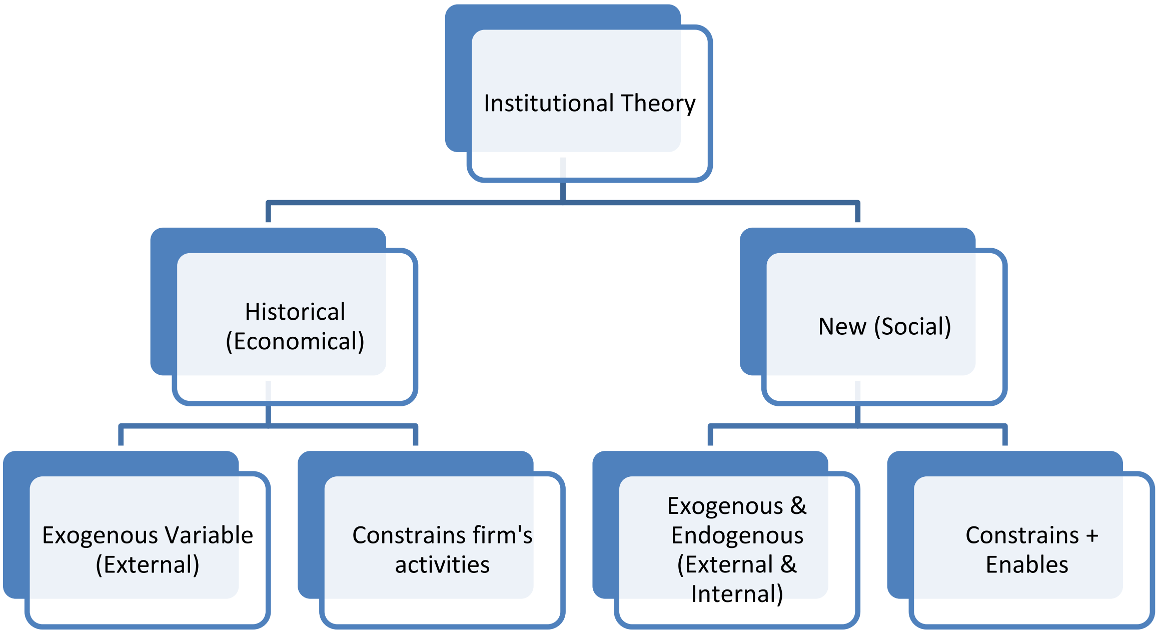
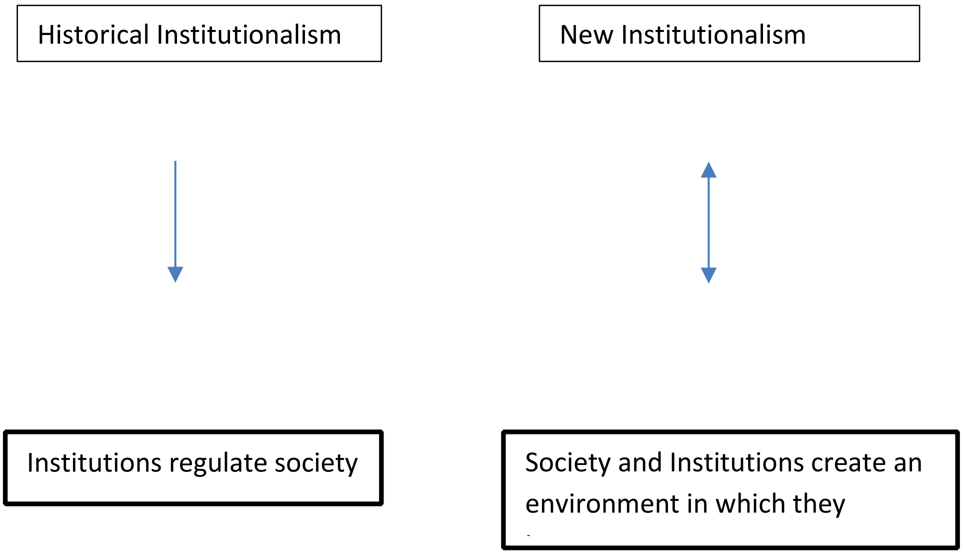


FIGURE 5: THE DEVELOPMENT OF INSTITUTIONAL THEORY (ADAPTED FROM STEINER, ET AL. 2016)

Additionally, there exists a further extension of New Institutionalism which is called "Comparative capitalism" or "Institutionalism and Comparative Business Systems". This additional stream furthers the research using the intuitional based view within the context of international business. Research under this stream follows the idea that interaction between a firm and institutions can create a business system (Rana, Trispaceframework). Institutions not only influence business entities, but the business entities also have the ability to influence the institutions in the institutional environment in which they operate. This, in turn, creates a business system.

ii. New Institutionalism

According to Dimaggio and Powell (1983, 1991), new institutionalism finds its roots in the work of Max Weber and his iron cage terminology. Briefly, Weber presents the idea that the subjective meanings behind an individual's actions trap the individual in an "iron cage" of rational order and efficiency. From Weber, researchers Meyer and Rowan (1977), Douglass North and several others have furthered this ideology, and new institutionalists work with the perception that institutions affect and are affected by the entirety of its environment or its institutional environment. To be put simply, an institution in this context can be subjected to change by not only formal institutions such as law but by informal institutions as well. It incorporates the interplay between institutions and the society surrounding it.



With this split between formal and informal institutions, it is helpful to understand what exactly constitutes institutions and how to classify it. Table (1) gives examples of various institutions

Examples of Common Institutions
• The Family • Religion • Social Group (e.g.: Friends) • Legal and Justice System • Educational Institutions

TABLE 1: COMMON INSTITUTIONS, AUTHORS INTERPRETATION

Whitley (2010) takes the work of North (1990) and Scott (2008), and describes institutions as two-dimensional structures that have an influencing effect on one another. North (1990) differentiates between formal and informal institutions. Formal institutions are which can be seen within a society, such as the country's laws, regulations, and rules. They are commonly made by the state or government. Informal Institutions are the invisible or unwritten guiding actors within society. They are the cultural norms and practices present in a society. Additionally, informal institutions also include the common values and ethics active in society.

To further aid in classification, Scott places formal and informal institutions into three pillars: cognitive, normative and regulative. These three pillars vary in terms of the institution's consciousness in a societal context.

The regulative pillar puts importance on the legal and political governing actors of society. Primarily formal institutions are placed into this category.

The normative pillar "represent the unspoken rules within a group" (Steiner et al. 39). The group enforces these rules upon the actor and it correlates to the duties one has to the group.

The cultural cognitive pillar is the interactions which shape individual behavior based on interpretation of the individual and is highly subjective. Both the normative and cognitive pillar are foundations of informal institutions. One could think of the pillars as "have to" vs. "ought to" vs. "want to".

b. Transaction Theory

Due to significant western economic development in the 60's and 70's, the interest in evaluating costs of doing business gained popularity and the term *Transaction costs* were for the first time introduced in the monetary economics literature.

Despite the literature field of transaction cost settled down only 50 years ago, the theory regarding the concept of price mechanism was already known for decades. In 1937, Ronald Coase introduced the theory of determining business decision making based on *costs of price mechanism.* This concept assumed that every economic decision can be determinable in regards to the context of its quantifiable cost of business. Such costs of doing business were described as direct monetary and time-related costs of resource, customer acquisition, costs of compliance and negotiation (Coase, 1937).

In the late 70s' and early 80s' and important seminal papers of Oliver E. Williamson, transaction costs were associated with the old-institutionalism understanding of business, based on paradigms of objective, determinable and always quantifiable reality. This means that the business environment was limited to its non-contextual and non-dynamic determinants.

Oliver E. Williamson contributes vastly to the field of transaction cost research. In 1979, he introduced the work *Transaction-Cost Economics: The Governance of Contractual Relations* and two years later in 1981 another important work called *The Economics of Organization: The Transaction Cost Approach*, which focused more on company's internal transaction cost, related to the business governance and value chain models.

Williamson's work is associated with the start of the modern era of cost theories. Therefore, the modern understanding of transaction costs is closely related to new-institutionalism, reflecting not only cost of price mechanism (purchasing and selling), but also reflecting external impacts on company's daily market interactions. His theory of transaction costs includes traces of behavioral economics, institutional theories, and theories of business governance as well as concepts of resource theories. Williamson's more holistic and dynamic understanding of transaction costs inspired future researchers to broaden their concepts of cost determinants.

Transaction Cost Theory plays a crucial role in our evaluation, mostly due to the character of the business environment of emerging market and different it's important relation to the actors CER behavior.

Before discussing the relevant TCT concepts, it is important to mention the work of Hymer and Kindleberger and their concept of market imperfection. All the cited authors based their work on assumptions of imperfect markets, resulting in different markets' institutional development, different purchase and negotiation power, different resource access, the existence of monopoles and more (Hymer 1960; Kindleberger, 1969).

i. Cost & transactions (Coase) in the context of CER

Coase described transaction through 3 key elements, which influence their contextual impact on the business, namely (1) frequency, (2) asset specificity, (3) uncertainty.

These factors can be translated into our context of international business influence on the development of CER in emerging markets.

Cost controlling heavily relies on improving cost transparency and efficiency of cost spending through constant evaluation of risks and opportunities for shaping cost development over the time. **Uncertainty** refers to a broad variety of market factor that moderates the unpredictability of the costs and its volume.

In the context of emerging markets and CER, Multi-national corporations interacting with emerging markets are facing the problems with determining the future cost of doing business. Uncertainty of transaction costs of emerging markets is created by its underdevelopment and reflect on low resource and knowledge commitment and the reluctance of long-term investments.

Frequency refers to the trade mechanism. The frequency, volume, and consistency of trade exchange are always contextual and depend on the context of external and internal business environment and type of market investment (Uppsala model, 1993; John Dunning's OLI theory, 1980)

Asset specificity describes a specific set of unique assets that company uses to conduct the business. Therefore, it refers to the character of the cost components related to the business performance. The character of the cost can be understood as a unique combination of internal and external assets that shapes certain group of costs (cost of value chain). In the context of Multi-national corporations in emerging market, the specificity of companies' assets reflects on the costs of acquiring these assets in a foreign market.

ii. Transaction Cost and behavioral economics

Oliver Williamson enhanced the old-institutional view of cost with internal subjective factors, such as *Bounded rationality* and *Opportunistic behavior*.

Bounded rationality touches the topic of behavioral economics and irrational decision making. This phenomenon plays an important role in CER as part of the motivation for being environmentally responsible is driven by altruistic behavior and its cultural embeddedness. Bounded rationality assumes voluntary, non-determinable actors' behavior driven by not only economic factors, but inter-corporates psychology into the decision-making process (Williamson, 1981).

Opportunistic behavior also relates to the field of business psychology and discusses the opportunistic behavior of market actors. This field of study closely relates to resource, knowledge-based theories as well as to institutional theory (Williamson, 1981).

Such example of opportunistic behavior can be often observed in developing countries and has its roots in lack of cognitive and legal behavioral frameworks. Due to the discouragement of the cost of institutional compliance caused by ineffective regulatory frames actors are trying to find a way to minimize these costs. This often leads to the creation of so-called *institutional voids*. Deterrent and non-functional law enforcement, lack of control organs and interest in preventing non-compliance lead to corruption and black markets (Dasgusta et. al., 1997).

iii. Transaction Cost and institutions

Steven Cheung proposed the term *institutional cost*, which ties together transaction cost and institutional theory. His work enhanced the previous work of Coase and Williamson by stressing out the importance of institutional environment of the business.

The regulatory frame (laws) needs to be legitimized within the cognition of the actors and should not create institutional voids but rather an environment in which companies need to make necessary changes to avoid the cost, uncertainty, and liabilities of noncompliance (DiMaggio and Powell, 1983). Following this logic, according to the work of Berchicci and

King, regulations should increase cost for the companies and therefore hurt them in order to change the *status quo* (Berchicci & King, 2007). The problem with the legal frameworks is in its implementation and cross-time and cross-space enforcement harmony (Lyoon & Maxwell, 2011). In other words, developing countries have a significant problem with cognitive legitimation (cultural acceptance), which as it is proven in later chapters, is closely related to the business environment. This problem ties back to the issue of the institutional voids and opportunistic behavior of the market actors.

The institutional problem in the context of CER is also undermined by the cultural CER perception. As we already briefly mentioned, the business environment has a significant impact on the development of the institutions, both on the legislators as well as on law recipients. Legislation cannot be efficient if not accepted by its recipients (DiMaggio & Powel, 1983). Essentially, if the market does not request more CER from itself, environmental regulations are perceived re-actively.

iv. TCT and RBV (Internalization)

The business environment has a huge impact on the implementation of CER measures and institutional development. The major aspect that differentiates developed from developing markets is resources, both in terms of tangible (capital and supply chain resources) and intangible (knowledge) (Li & Lu, 2014).

According to Fatma Küskü (2007), customers in developing countries have very little pressure on corporations' proactive CER measures. His study identifies two main reasons causing this issue; (1) the low negotiation purchase power and (2) low CSR/CER ethics perception. Fatma Küskü study is important because it highlights the importance of the economic background of the market, which to a great extent influences the ethical/cognitive level of CER perception. Petersen and Vredenburg proved that economic added value is for companies more important than morals, therefore the benefits of CER need to be perceived as investments (Petersen & Vredenburg, 2009).

Setthasakko (2009) investigated similar phenomenon on the fishing industry in Thailand, defining three root causes of underdeveloped CER; (1) underdeveloped regulatory pillar, (2) lack of management commitment and (3) short-term objectives. All of the above-mentioned problems related to the issue of the resource-constrained environment of emerging markets. Economic benefits and lower transaction costs emerging from CER are more difficult to be achievable partially due to low resource commitment (Setthasakko, 2009).

Transaction costs and its relevance to the resources can be perceived also from the perceptive of foreign investors (Multi-national corporations). These corporations commit more capital and knowledge-based resources, focusing on more long-term strategies and investment. Friedman (1970) highlighted the importance of CER as a future profit investment measure, which offsets the costs of compliance (Friedman, 1979). The work of Hennart, *Transaction Cost Theory and International Business* explain knowledge transaction between Multi-national corporations and local businesses.

		Knowledge assets held by the MNE	
		Column 1: Easy to transact	Column 2: Difficult to transact
Complementary assets held by local owners	Row 1: Easy to transact	1. Indeterminate	3. MNE is sole residual claimant = wholly-owned affiliate of the MNE
	Row 2: Difficult to transact	2. Local firm is sole residual claimant = wholly-owned operations of local firm	4. Joint venture between MNE and local firm

Figure 6: Hennart's knowledge internalization matrix Source: Hennart, 2010

This matrix describes four different actions that MNCs' should take based on the context of knowledge assets held by themselves and local resource acquisition difficulty. The matrix shows the best practice to be taken in order to minimize uncertainty and risk of transaction costs.

Intermediate refers to the usage of 3rd party company to facilitate the process of the transaction, which is typical for low-commitment relationships, while the other extreme *Joint*

Venture suggests establishing a strong relationship to provide safeguards for both parties. The problem of Multi-national corporations' lack of resource commitment in emerging markets emerges from the value of the resources of the emerging markets' actors. The relative value of the local resources is not created through technological advancement or managerial know-how, but through its low price. Therefore, local owners do not internalize or protect their resources (Hennart, 2010). This effect results into the low foreign investors' resource commitment, which as further will be explained in *Discussion*, plays a crucial role in the institutional development of CER in developing markets.

v. Cost of compliance offset

Friedman in 1970 stated the corporate social and environmental responsibility increases companies profit over the time. He did not deny the fact that regulations do oppose cost of compliance, but rather that correct set-up of regulations increases company's market value. This beneficial effect offsets the cost of compliance through incentivizing and stimulating innovations (Porter & Linde, 1995).

According to King (1995), regulations in CER reveals production problems, improve operations and increases short-term productivity (King, 1995). CER regulations also stimulate technology improvement and improve the efficiency of production (Chirstmann, 2000). This phenomenon was later explained in details by Delmas (2002), who identified the linkage between the CER regulations and the market pressure, proving that pro-active adoption of CER regulations enhance market cost-competitiveness and improves productivity. These processes lead to the establishing of quality standards (e.g. ISO standards). Production and service quality standards increase companies' international networks, which contribute to the decrease of cost of compliance through sharing and mimicking the CER practices (Guler et al., 2002).

c. Resource-based View

The Resource Based View, occasionally referred to as Resource Based Theory, is a concept that argues that specific inimitable currently existing resources will result in an outstanding firm performance and ultimately lead to a competitive advantage for a firm. It became popular due to the work of Birger Wernerfelt (1984) aptly titled "A Resource-Based View of the Firm", however traces of it can be found in works by Selznick (1957), Penrose (1959), as well as the works of Williamson (1957) and Coase's "Nature of the Firm" from 1937. The combination of these works as well as a paradigm shift from a restrictive neoclassical focus towards a perspective of broader rationale, and the combination of elements within industrial organizational economics and organizational economics particularly aided the development of this view.

During the 1980's and 1990's, studies within industrial organizational changed from the idea that businesses potential to perform at a high level were limited to the industry in which they operated (Porter 1979). As time progressed, scholars such as Wernerfelt (1984) began to think differently and started to explore the idea that, it was aspects within the firm, specifically the resources in which they had access to, that led to its success or conversely, its demise.

Before diving into inner workings of the Resource-Based View, we should identify what exactly: a resource is, what competitive advantage is and how that differs from sustained competitive advantage.

i. Resources

Broadly speaking, resources are oft seen as either tangible or intangible and can be a complex concept to when it comes to conceptualization. This is evident by several of the definitions that exist in business literature, however, only a few will be mentioned in this paper. Originally, resources were thought to be everything that could be perceived as beneficial or detrimental for a firm (Wernerfelt, 1984). Using the works of Learned et al. (1969) they state that resources are strengths which can be used later when creating, developing, and implementing business strategies. Daft (1983) also believed similarly and argued that resources were a combination of: assets and capabilities, including knowledge and all the internal processes of the organization; all of which are organized and managed in such way that it enhances the firm's ability to realize their goals in an efficient manner. Additionally, Daft states that resources are both tangible and intangible.

However, researchers Amit & Schoemaker (1993) decided to further define the term and consequently differentiated between resources and capabilities. As such, resources become tradeable and are not solely attributed to one firm, whereas capabilities are attached to a firm and are internal and not as easily tradeable (MAdkok 2001) (Hoopes et al. 2003). That is to say, capabilities are a type of resource and are helpful in using resources to their full potential; a general example of this would be transferring knowledge of a local market from the business intelligence department to the marketing department in order to best market a product.

ii. Resource Types

Regardless of the definition employed, resources are normally separated by their physical or non-physical presence, in other words, their tangibility versus intangibility as is evident from the likes of Barney (1991), Wernerfelt (1984), and Daft (1983). Accordingly, there exist three general resource types that stem from these differentiations. They are physical capital, human capital, and organizational capital.

Physical capital is defined as, "the same as 'capital' […] in the sense of plant and equipment." (Deardorff's Glossary of International Economics). Essentially, it includes the tangible assets a company might possess and includes: the technology in place at the company, elements of the production process itself such as the machinery or computers, the geographic location as well as raw materials.

Human capital is comprised of the non-tangible resources such as knowledge. It is defined as, "the stock of knowledge and skill embodied in an individual person as a result of education, training, and experience, that makes [a] person more economically productive" (ibid). However, human capital can also stem from a whole economy, it is not limited to just one single individual. It refers to both to individual characteristics, but also the entire skillset and knowledge possessed within an organization.

Organizational capital is a bit more difficult to conceptualize, but it enables the tangible and intangible resources to become productive. Barney (1991) defines it as the combination of the organization's relationships; their control systems and the formal and informal planning that affect the company. Another more simple way to define it is the combination of "patens, machines, brands, and human capital" in place in order to be productive. This type of capital allows for non-tangible resources such as knowledge to be combined with tangible resources such as machines, in order to become functional.

Additionally, there exists another way to classify resources, such as Brush et al. did (2002). They refer to resources as well by the difference of tangible or intangible, but the researchers here classify resources as being property-based or tangible, and knowledge-based which are intangible resources. They further differentiate between resources that are used as resources or tangible and intangible resources that are used in order to obtain new resources (Steiner et al. 2016).

iii. Major Points of the Resource Based View

The Resource Based View often follows a four-point list of attributes, often referred to as *VRIN (Barney, 1991)* or *VRIO (Barney, 1995).* Similar to other tools used to measure a business's competitive advantage such as *Porter's 5 Forces, PEST Analysis,* or *the BCG Matrix*, the *VRIO* framework lists four characteristics or criteria for a firm to meet in order to find its sustained competitive advantage from an internal standpoint and was originally developed by Barney (1991-1995). Sustained competitive advantage is solely achieved if a resource meets all four criteria.

Originally termed *VRIN* based on: how *valuable* a resource is, its *rarity*, the degree of difficulty to *imitate* it, and if a *substitute* exists *(non-substitutable)* were indicating factors of an entity's competitive advantage. Years later, Barney improved the fourth criterion to *O (organized)* formatting these four characteristics in the shape of four questions a firm can use to better identify any presentable advantages (Barney, 1995).

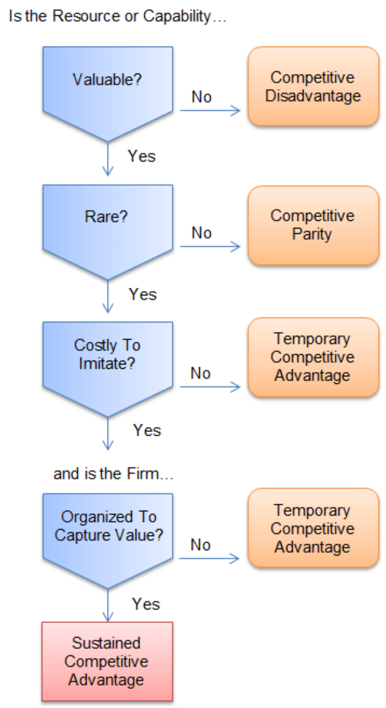


FIGURE 7: THE VRIO FRAMEWORK, SOURCE: ROTHAERMEL'S (2013) 'STRATEGIC MANAGEMENT', P.91

Thus, the framework is now known as the *VRIO* framework and the four characteristics now seek to measure

- How *valuable* is a resource.
- How *rare* is it.
- How difficult is it to *imitate* (*inimitability).*
- How organized is the firm in order to exploit the resource.

Level of Value

The perceived level of value is decided upon the resource's ability to "enable a firm to develop and implement strategies" that would both lower a firm's costs and/or "increase a firm's net revenues" instead of what the net cost and revenue would have otherwise been (Barney, 1995). Additionally, the value of a resource is also related to its ability of nullability of an external threat or ease of access towards exploitation. Essentially, a resources' value is dependent on its ability to: raise and/or lower net profit and net costs respectively, the neutralization of an existing threat, and the accessibility of exploitation.

Level of Rarity

The level of rarity of a resource is determined by the number of competitors that possess the same resource. The possession of a valuable resource does not necessarily entail that a resource is rare, and thus does not automatically give to a firm a sustained competitive advantage, rather they now possess a relative advantage. Rare resources do not need to be owned by solely one firm and can be allocated to few or several entities, dependent on the market and resource in question (Barney, 1995). However, the main criterion of rarity is that the resource cannot be accessed or owned by many competitors. Justly, the smaller amount of businesses that have access to the same resource, the rarer it is considered to be.

Difficulty of Imitation

Quite similar to the rare aspect of a resource, the level of imitability refers to the number qualified substitutes that exist or could be developed (Barney, 1995). Should a company have a resource that is: "valuable and rare" the company then has a competitive advantage over others unless another company is able to acquire said resource or copy the resource through the means of substitution. Should a company have a rare resource and is considered to be a market leader, competitors will then seek to establish a substitute that will bring similar benefits, and this is where the concept of inimitation stems from (ibid).

Additionally, this criterion is also dependent on the cost of imitation for competitors. Should competitors have to incur a high cost to either acquire or substitute for a resource, as well as being rare and offer a high value for those in possession, then a company has achieved a sustainable competitive advantage (Barney, 1995). The inability to copy or acquire resource is not solely dictated by financial factors, it can also be caused by previous "historical conditions, social complexity, or casual ambiguity (Steiner et al. 2016).

That being said, there is the argument that should enough time pass and enough money be spent on research, nearly every resource can be imitated (Gallagher as quoted in Falcon 2009). Therefore, this is one of the toughest criterions to be met.

Firm's Organizational Level

The fourth criterion as within the *VRIO* framework has to do with the organization itself. This element addresses the issues that merely controlling a resource may not be enough to gain advantage. It is also necessary for the firm to have the means of exploiting the resource (https://open.lib.umn.edu/principlesmanagement/chapter/5-6-developing-strategy-through-internal-analysis/). This can deal with many aspects of the business such as production, management, or even financial aspects. It is necessary for this criterion to be met in order to reap any benefits that may be found from having a rare, valuable, and imitable resource. So, should a firm not be able to implement procedures or draft policies that allow for the business to realize the resources full potential, then the resource has been managed in an inappropriate way and the potential for sustained competitive advantage may be lost (Barney, 1995).

Mentionable is the fact that, even if a firm meets the four criteria of the VRIO framework, there must be a repeatedly run of the four stages in order the firm to be able to identify the resource that can offer a sustained competitive advantage. This is a result depended on how fast or easy the competitors can find or develop their own resource to fulfill VRIO four criteria and the life of the resource offering to the firm the sustained competitive advantage.

Additionally, this resource-based view is based on the idea of "heterogeneity and immobility of competitive capability-producing and rent-earning resources". Barney made the argument that a firm achieves a sustained competitive advantage only when that same firm is able to generate a greater economic value than other competitors on the market, these are also known as the resource heterogeneity and resource immobility assumption respectively. These two principles aid as a tool for understanding why some companies may obtain a sustainable competitive advantage over the market, and why others, may not. According to Peteraf and Barney, (2007), this resource heterogeneity assumption states that firms operating within a specific industry each have their own distinct natural resources and because of this some firms are better equipped to complete various responsibilities and business activities. The second assumption assumes that both variation and benefits of resources will last over time because of the complexities that can occur when trading resources across firms (Barney and Hesterly, 2013). Essentially, the resource-based view argues that if a firm has access to resources that only they themselves or a relatively few other firms have access to, they have a competitive advantage. However, if this firm or firms also have access to resources and its costly, both from a time and financial perspective, to imitate these resources or even impossible, then that firm or firms have a *sustained competitive advantage.* That being said, even if these assumptions hold true, this does not necessarily equate to a sustained competitive advantage as other factors come into play (Priem and Butler, 1986) (Dierckx and Cool 1989).

While we employ the resource based view, institutional theory, and in our project, but we would be amiss if some critiques of these theories were not mentioned.

6. Model (Framework)

The model ties back to the literature and the relevant theories related to the topic of CER and international business. Therefore, our model relies on the theory of transaction costs, resource-based view and institutional theories. Our previous model used arguments based also on network theory and behavioral economics, which we consider less relevant, yet still suitable in this context.

The framework (**figure 8**) illustrates the implementation of CER into the market. This particular model provides us with a base for understanding the context of CER in emerging markets. The model serves as a blueprint for analysis of the influence of international business (Multi-national corporations) on Asian markets' CER approach. As in our previously published paper, this model also assumes the importance of institutions and their two different impacts (pro-active & re-active behavior) on the final outcome, which in our case is market acceptance and implementation of CER. The left side of the graphs illustrates the key barriers that hamper institutions to properly facilitate this process. Their role of these barriers is explained later in this chapter. Later in the *Discussion* chapter, the element of *international business (MNC)* is introduced and its influence the overall dynamics and relations between the framework elements are discussed.

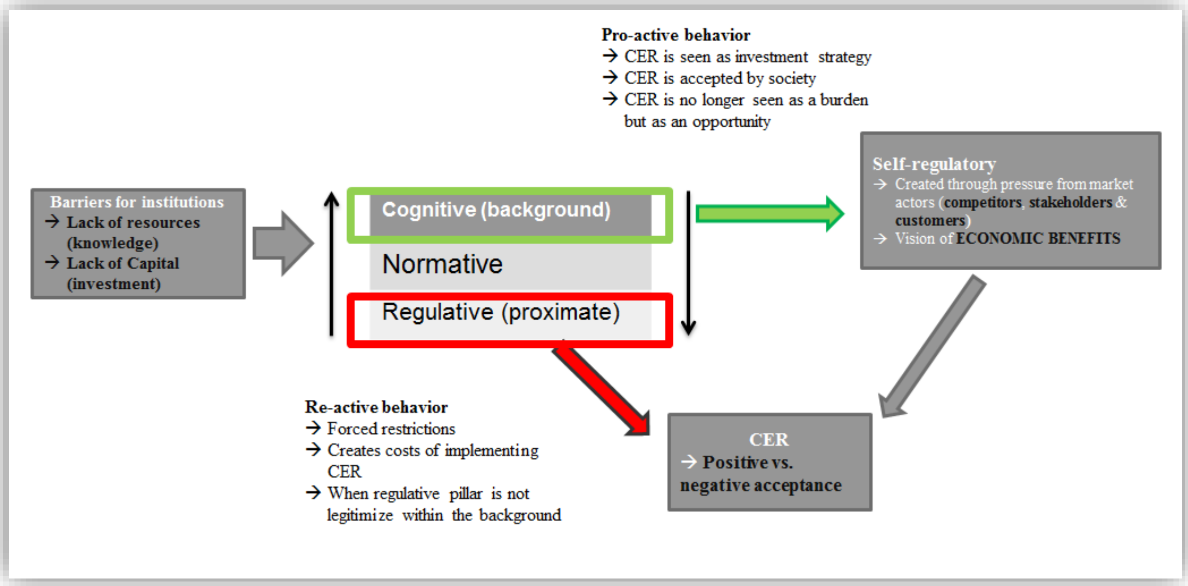


FIGURE 8: SOURCE: AUTHORS' INTERPRETATION

The following paragraphs describe the fundamental dynamics of this framework, briefly introducing the role of each element and the paradigms under which the model operates.

The key element of this model is ***Institutions***. Our previously used framework describing the relevance and institutional impact of diaspora in international business environment treated the framework component of institution as non-dynamic and non-aggregate element, distinguishing *soft organs* and *hard organs* and assigning them different and independent roles. Our current view of institutions, closely discussed in the *Theory* part, perceives institutions as dichotomous and inter-depended holistic item. In other words, we believe that the legitimate pro-active implementation of CER in emerging markets cannot be understood only through *soft organs* (cognitive institutional pillar), but through the interplay between soft & hard organs and their entropy.

Following the path of ***pro-active*** behavior of actors, the model assumes that the cognitive pillar of institutions provides a necessary cultural understanding of CER and its economic and altruistic benefits for the market actors, which leads to *self-regulatory* measures. Assuming that common market understanding of CER (cognition) legitimizes itself within the regulatory (legal) frame; market actors do not have to only passively respect legal requirements, but can pro-actively implement CER measures. A working and developed institutional system (legal & cultural) should not only oppose costs to the business but should be able to provide a business environment enabling market actors to benefit from CER. Our model assumes that institutions are to a great extend constrained by the resources and capital, represented by transaction cost and resource-based theories. These barriers, their influence on institutions as well as pro-active measures are later on analyzed in *Discussion* part.

As already briefly mentioned, ***re-active*** behavior is driven by non-functional institutional frame, created by the countries; contextual resource and capital barrier. The framework assumes that proximate layer of institutions can either lack formal CER regulatory frame, responsible for controlling CER development or can be non-legitimized within the historical & cultural pillar, creating re-active behavior and institutional voids. This does not assume that the lack of pro-active CER approach is initially caused by underdeveloped institutions, but rather that the problem with institutions, forming re-active or non-active behavior is the result of the existence of barriers (lack of knowledge, lack of tangible resources, lack of capital, networks, etc.). The problem of insufficient CER measures amongst market actors is usually driven by the market environment, characterized by lack of long-term goals, low investment rate, turbulent market and low added value. These factors are reflecting on the cognitive and regulatory pillar of institutions, which provide a base for future CER development.

The barriers in our model are treated from the perspective of TCT and RBV (KBV). Despite mentioning that behind the specific social and economic situation in emerging markets stands not only the problem of insufficient capital and resources, these two factors are playing the most important role in this phenomenon. Their specific impacts, relations to CER and institutions are discussed in *Discussion* chapter.

The main research questions of this thesis are related to the influence of Multi-national corporations on this phenomenon. Their role in the markets, their relations to the socio-economic barriers, influence on local and international institutions as well as their contextual subjective market approach are discussed in later chapters.

7. Discussion (framework interpretation)

a. The Chinese and Indian markets

Based on the World's Bank publications, China carries a GDP for the year 2015 of 11,06 trillion dollars. Of the same year's measures, India's GDP worth's of 2,089 trillion dollars, five times less than Chinas considering the almost the same population of both countries (World Bank, 2015). A 2015 report of Trends in Global CO2 Emissions, refers to the top four CO2 emission countries/regions in the world that together account 61% of the global CO2 emissions. Namely, these countries are China with 30%, USA with 15%, EU with 10% and India with 6,5%. Thus, the two countries we focus in our research account together 36,5%, one-third, of the global CO2 emissions. Translating the number, we identify the demand of these two markets for efficient CER strategies and policies' applications in order to achieve a decrease in the annual CO2 emission reports.

In the next sessions, we will analyze the two market separately, identifying some factor that influences the markets' corporate environmental responsibility as well as the influence DHL has or potentially will have in the markets.

b. The case of India

As stated before, India, out of the two countries we examine, has the lowest CO2 emissions as globally as well per capita. Also, India has one-fifth of Chinas GDP, resulting in the assumption that the purchasing power of the market is lower, consequent to the low beneficial exploitation of the market for DHL Supply Chain.

An opportunity that can be exploited by DHL Supply Chain came from Nature, 2015, which prioritizes the quality of living of people in the country. The publication mentions that the temperature in global warming and the side effect of it, monsoons, water scarcity, high temperatures, and the effects on the power distribution system of the country, resulting in a low standard of living of Indian people. DHL SC can step on this report and use it for its beneficial.

Additionally, combined with The Water, The Air and The Environmental Protection Acts which India based its environmental protection regulations on building CER policies (The ministry of environment and forest, 1974-1981). Based on these acts, later on in 2013, The Ministry of Corporate Affairs of India published The Companies Act, a very important regulation for the companies operating in India, referring that they have to invest minimum 2% of their average net profits on CSR (corporate social responsibility) measures. Corporate social responsibility is included in corporate environmental responsibility framework (Tiwari & Ghosh, 2014). For DHL SC, these mean that the company steps with a new CER strategy in a country's environment that by itself is willing to improve its environmental awareness.

According to Tiwari & Ghosh, 2014, India lacks a strict CER regulation. This results to a poor management of India for the social responsibility for the environment and therefore companies operating in the market lack the attitude towards their environmental responsibility (Tiwari & Ghosh, 2014).

A factor that is aligned and influences institutions in India, is that India is composed of different cultures and religions which affect the common compromise of all. India is divided mainly in Hinduism, Islam, Christianity, Sikhism, Buddhism and Jainism (firstpost.com, 2015), as well as the ethnic groups in India consists of Indo-Aryan, Dravidian and Mongoloid and other minority groups (worldatlas.com, Gregory Sousa, 2017). All this dispersion in India creates barriers for a common policy, thus affecting the CER applications (Blundell, J., 2015).

As a result of all the above-mentioned factors, DHP Supply Chain will influence with its global common CER policy all the different institutions existing in the Indian market. Thus, the diversity will be eliminated and will directly influence the country's institution voids that negatively impact the Indian market.

A case-study conducted by DHL Supply Chain for India published in 2014. DHL SC presented a solution for minimizing the environmental consequencesf based on the packaging style and technique of the products (DSC in India, 2014). The suggested improvements were:

- Light-weighting materials
- Optimizing structural and material design
- Eliminating unnecessary packaging
- Reusable packs
- Recycling packages fitting the end-of-life treatment facilities

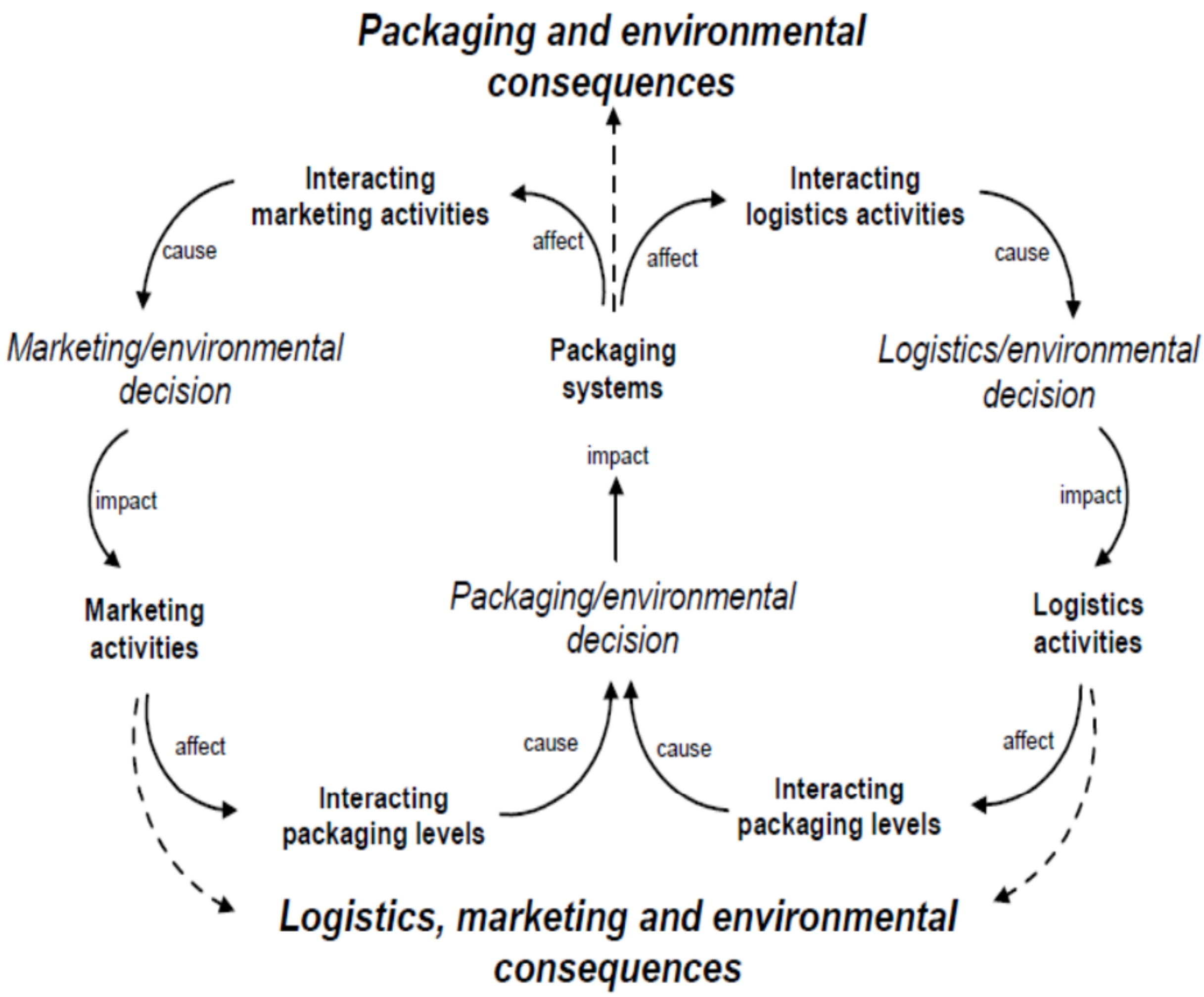


FIGURE 9: DSC IN INDIA, 2014

These activities prove that there can be a synergy that will allow to improve logistics productivity, quality and impact corporate environmental responsibility of customers in India.

Another justification that DHL Supply Chain can influence positively the institutions of India and the social and environmental responsibility, is a joint study conducted by DHL and the Organization of Pharmaceutical Producers of India (OPPI) in 2011. The study refers to how potentially India can be a world class Life Science and Healthcare logistic partner by improving the supply chain activities and the warehousing (Transforming Life Sciences Logistics in India, 2011).

c. The case of China

China, according to the Trends in Global CO2 Emissions, 2015, report is the biggest CO2 producer in the world, almost five times more than India. Moreover, the GDP per capita in China is five times higher that India's. This results to the assumption that Chinese market is more attractive and the purchasing power of the market is offering a high beneficial exploitation of the market for DHL Supply Chain. These kinds of markets attract international companies to enter the market and benefit from the potential development of the economy. However, China faces a significant disadvantage because of the high CO2 emissions it produces and affects negatively the CER institution.

China, according to DHL Supply Chain, is considered as the biggest country producing and manufacturing products. But, DHL Supply Chain gains a revenue of 13% of the Asian Pacific region. This draws the conclusion that even the high opportunities the potential market of China offers to DHL SC, DHL SC cannot take advantage of it, despite the fact that owns the 44% of the Asian Pacific market share (2016 Business Profile, p.32).

Another barrier for an effective CER implementation in the Chinese market is the political situation in the country. Even though China has a strong political stability, the Communist party that governs the country is the only negotiator to communicate about new legal practices and CER policies (Buhmann, 2015). Karin Buhmann continues and argues that Chinese behavior and long-term activities for CER polities is totally different from the European standards, which DHL Supply Chain is building its strategy (Buhmann, 2015). For China, a big scope is to follow the goals of MDGs, adopted in September 2000 with a deadline in 2015 (http://www.unmillenniumproject.org/goals/index.htm). One of the eight goals is to *"Ensure Environmental Sustainability"*, which for DHL SC this is an opportunity to support their new implementation of their CER strategy plan.

An important step for DHL SC in the Chinese market is the Memorandum of Understanding (MOU) that have signed with HUAWEI. This Memorandum goal is to apply the Internet of Things (IoT) technology to all stages of the supply chain in the logistics industry. The aims of this project are to minimize the power consumption, consequently and the CO2 emissions, by connecting in long distances large volumes of devices. This project not only improves the operations of DHL SC in China but aims to achieve a world class Internet of Things Supply Chain management (DHL Press Archive 2016).

d. The case of DHL

Deutsche Post DHL Group is a logistics company directed by its headquarters in Bonn, Germany. The company is operating globally in 220 countries with more than 420.000 employees. DP DHL Group is considered as the world's biggest company in its industry with a revenue of 59 billion euros approximately and an EBIT of 2,4 million euro approximately (Investors Relations Business Profile, 2016). The Group consists of five divisions, the Deutsche Post, the DHL Express, the DHL Global Forwarding, the DHL Freight and the DHL Supply Chain (Our Organization, DHL official website).

DHL Supply Chain, which this thesis is focusing on, is a Business to Business (B2B) division, focusing on providing supply chain solutions. The division is providing warehousing, transportation services, information and communication management services (Our Organization, DHL official website).

"Our associates bring global vision, market insights and disciplined process to supply chain solutions for the world's leading companies. Contract logistics expertise and broad industry knowledge ensure our solution design, warehousing, fulfillment, and transportation services help companies be more productive, efficient and competitive. In all cases, the customer's business needs are at the center of everything we do - from initial situation analysis to the continuous improvement programs that help deliver better results every day."

John Gilbert, CEO DHL SUPPLY CHAIN,
http://www.dhl.com/en/about_us/company_portrait/our_organization.html

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The Strategy 2050

Deutsche Post DHL Group, in 2017, released the announcement of the program called "Strategy 2050" referred also as GoGreen, aiming to zero emissions logistics by the year of 2050. The strategy is divided into two steps, 2025 goals and 2050 goals (Environment and solutions, Deutsche Post DHL Group). The company is aiming to minimize the carbon emissions of the company globally, locally will try to improve the delivery methods with no-carbon producing solutions, will incorporate with the customers to improve their supply chains for greener solutions and the company will offer a GoGreen specialization training to its employees in order to improve their environmental-friendly activities. Additionally, the company is planning to plant one million trees every year (DHL, Press Archive 2017). Moreover, with this strategy, Deutsche Post DHL Group, is supporting the United Nations' 2030 Agenda for Sustainable Development and complies directly with Goal 11 and 13 (of the 17 Goals in total), "Sustainable Cities and Communities" and "Climate Action" respectively. The rest of the Goals focus on people's standard of living, the protection of the planet, the common prosperity of all nations, the world peace, and to an essential global partnership for sustainable development (Sustainable Development, Knowledge Platform).

The GoGreen program has been built on two fundamentals, namely, *"Burn Less"* and *"Burn Green"*. Both principles focus on optimizing the results of the GoGreen 2050 strategy and by involving its customers in the GoGreen solution, the company aims to improve carbon efficiency in both their and their customer's supply chain (DHL, Press Archive 2017).

In the past, the DP DHL Group has achieved their CER goals of 2020, *"Focus"*, *"Connect"*, *"Grow"*, and based on that experience is built the new CER strategy for 2050. Specifically, the company achieved the 2020 goals within four years advanced than the deadline. Namely, the 2020 goal was to reduce per 30% the CO2 emissions until 2020 based on 2007 measures (DHL, Press Archive 2017).

Generally, mentionable is the fact that Deutsche Post DHL Groups builds and follows the same strategies globally, meaning that one strategy is applied in all the countries of operation and to all its customers. Thus, through the GoGreen solution, the company is projecting the environmental responsibility, not only from the company itself but also through the countries and the customers. By this, the company is improving the corporate environmental responsibility by influencing the institutions of the involved with the company.

DHL Supply Chain and Corporate Environmental Responsibility

According to the study, Delivering Tomorrow - Towards Sustainable Logistics, 2010, Sander van den Berg argues that CER investments are facing different factors that contribute to decreasing the efficiency of CER applications. These factors namely are, economic reason and cost reductions, the quest for a rise in cash, the internal focus for lowing the cost, inefficient communication and collaboration between departments, the non-forcing policies for CO2 emission levels (Berg, 2010).

In the same study, Petra Kiwitt, argues about urbanization and the issues CER policies are facing. Kiwitt is referring to the challenges linked to logistic activities, namely, high traffic congestion because of the inappropriate urban transportation infrastructure, not enough space in the cities is leading to more driving kilometers for space search, and the increase in CO2 emissions because of high transportation activities. Furthermore, Kiwitt addresses the major challenges faced by businesses led by high urbanization, namely, inaccurate delivery time, insufficient storage space and the cost to acquire more, city complexity results to higher costs, and the increase of delivery services.

Additionally, Kiwitt is suggesting solutions that can improve the CER polities against the high urbanization on the urban centers. *"Using alternative infrastructure to road transportation"*, despite the high cost, a new infrastructure for delivering services could manage more efficiently the transportation solution. *"Urban Consolidation Center"*, this solution has two ways to be achieved, by delivering several shipments to a single customer or by delivering several shipments to several customers with one delivery. *"Service point 24/7"*, which offers a 24/7 service of pick it up combined with central service points. *"Night transportation"*, this solution offers delivery services during the night hours that the urban traffic is to its minimum. *"Technological Improvements to reduce CO2 emissions"*, instead of trying to reduce urban' high traffic, improve the CO2 emissions by using more eco-friendly vehicles and improve warehouse efficiency (Kiwitt, 2010).

Continuing with the study, Delivering Tomorrow - Towards Sustainable Logistics, 2010, Straube & Doch argue that, for Supply Chain operations to approach corporate environmental responsibility strategies, need to follow some basic steps. These steps namely are, collect reliable measures of emission levels, identify potential techniques for eco-friendly improvement, quantified techniques of eco-efficient performance indicators, and identifying the potential of the techniques defining objectives and guidelines for logistics planning and supply chain solutions (Straube & Doch, 2010).

DHL Supply Chain in India and China

Following, Souza, Rong and Bolton, 2010, in the study, Delivering Tomorrow - Towards Sustainable Logistics, which they focus on *"sustainable logistics in Asia"*, we try to identify the key factors for CER development in the markets of China and India.

According to, Souza et al., Asian countries produce the highest CO2 emissions in world measures. China is the highest producer and India follows. Despite the fact that China committed itself to improve energy efficiency by 40-45% per GDP units by 2020, still, today remains the bigger producer of CO2 emissions in the world (Trends in Global CO2 Emissions, 2015). As a fact of China's 2020 commitment, supply chain services will be improved into more green solutions. DHL Supply Chain corporate environmental responsibility policies will contribute to China's institution framework and develop it to achieve a more sustainable level. At the same time, as China's market purchasing power offers a high beneficial exploitation of the market for the company. This is giving to the Chinese market the possibility to play a leading role in the global CER solutions and development (Souza, Rong & Bolton, 2010).

Another key factor that can help DHL Supply Chain to apply CER solutions in the Chinese and Indian markets, is the fact that 84% of the consumers in these countries are willing to spend for a premium price for eco-friendly products (Souza, Rong & Bolton, 2010). This is shaping the institution frameworks of the market and the customers to support economically the CER solutions, especially in China where a survey resulted that Chinese consumers are highly concerned about green issues.

India with the *"Green Urban Transport"* project, launched in 2010, aims to reduce environmental pollution. DHL Supply Chain CER policy can contribute to reduce CO2 emissions and shape the social environmental responsibility institutions. China as well, invested in alternative solutions of vehicles in order to improve CO2 emissions, as well as invested in improving the quality of clean water and waste management (Souza, Rong & Bolton, 2010). In both countries, DHL Supply Chain can benefit from the eco-friendly investments and apply the corporation environmental responsibility solutions and achieve Green Logistics solutions in the markets. The rapidly grow of environmental concern in China and India and the high industrialization of the countries, result to a fertile ground for DHL Supply Chain. The company can apply sustainable logistic solutions in markets that the need for logistics is growing rapidly (Souza, Rong & Bolton, 2010).

8. Conclusion

Multi-national corporations' business activities can influence the institutions of emerging markets. The results when it comes to corporate environmental responsibility solutions can improve the countries legislation and institutions and develop the social environmental responsibility. The current research investigates and justifies the importance of these business activities in emerging markets.

The research presents through the literature review and theoretical analysis the relevance between emerging markets and the influence of multi-national corporations. For Multi-national corporations, institutions are shaping decision making for sustainable and eco-friendly activities and on the other hand resource research is aiming to give sustained competitive advantage. For emerging markets, in our research, India and China, evolve in accordance with their institution framework and legislations that shape their environmental responsibility activities.

Generally, the global activities about environmental protection, quality of life and nations equal rights, tent to be improved and enhanced. Global organizations in cooperation with leader countries of the world bound to set goals to be achieved globally for a global environmental protection.

In our case, we examine the emerging markets of China and India as two biggest Asian markets. Both of these serve the perfect purpose to demonstrating our hypothesis and findings as they are rapidly developing and are hugely popular amongst European companies for foreign direct investments. Another reason for working particularly with these markets is their relative stable political status, which creates space for more objective evaluation.

China is a market which offers an attractive market for multi-national corporations' business activities, as the market offers a high beneficial exploitation because of the high GDP per capita it introduces. On the other hand, China is the highest CO2 emissions producer in the world, meaning that multi-national corporations that follow corporate environmental responsibility strategies will face institutional voids and legitimacy deficiencies.

India, although compare to China has five times less CO2 emissions, the GDP per capita indicates that the market cannot support a high beneficial exploitation in order to attract multi-national corporations to enter the market and invest. Furthermore, India's culture variety is shaping a complex institution frame that does not support an easy implementation of CER policies.

The research is focusing also in the case-study of DHL Supply Chain. Deutsche Post DHL Group, in the first quarter of 2017 released the *"Strategy 2050"*, a strategy focusing on corporation environmental responsibility solutions that aim to zero CO2 emissions of the company until the year 2050. DHL Supply Chain, because of the fact that is a globally operating company which develops and applies the same strategies and policies in all of its regions of operations, can demonstrate the influence of a multi-national corporation in emerging markets as a moderator of the institutional development of the corporate environmental responsibility.

DHL Supply Chain influence the institution development of the markets as well as the local actors (customers). The company's CER solutions impacts' both emerging markets of China and India with a positive influence on the institutional development as well as on the social environmental responsibility.

The conceptual framework is proven based on the positive CER impact of DHL Supply Chain to both Chinese and Indian emerging markets.

9. Limitation & future research

Based on the research some limitations have been identified as well as a future research will be introduced in order to expand the knowledge this research can study.

The research has been conducted following deductive reasoning, providing results based on case-studies. We believe that the possibility of an inductive research will offer to the researcher the possibility to work with empirical data and present more subjective results.

This limitation is a result of the complexity to find specific relevant data to the research question. Furthermore, the case-based research is missing the comparison of positive and negative impact of the multi-national corporation in emerging markets' institutional development and social environmental responsibility.

Moreover, the theoretical base of the research was built on three main theories, namely, institutional theory, resource-based view and corporate environmental responsibility, but we believe that more theories could be applied and extend the study's view.

In terms of future research, there are two proposed suggestions.

An inductive research based on empirical data, that can be extended from country-specific to global-specific. This kind of research can provide detailed data and examine information about specific markets, countries, multi-national corporations, and the effects of corporation environmental activities based on the conceptual framework presented in this research.

On the other hand, a research based on Strategies for Environmental Communication consisting of Documenting Strategy, Integrating Strategy and Distributing Strategy could be conducted. These three strategies are not mutually exclusive, but they supplement and support each other. This way the research focus on how multi-national corporations' can succeed in better environmental image as well as achieve efficiently the settled environmental goals.

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