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# An Idea of Pollution Haven In Business

## Literature Review

### 2.1 Multinationals' Internationalisation and Corporate Social Responsibility

The relationship between the level of internationalisation of a firm and the amount of CSR activities put under practice is a recent field of study. Although, most of the main papers regarding this topic have been published starting from the first years of the 21st century, the analysis of some aspects of this interaction started several decades ago. By introducing the concept of psychic distance, Johanson and Vahlne (1977) had set the stage for the discussions regarding the relationship between internationalisation and CSR. They define psychic distance as the uncertainty encountered by a firm that decides to become a multinational due to "differences in language, culture, political systems, level of education, or level of industrial development" (p.27). They posit that a firm facing psychic distance would be willing to enhance its CSR activities in the foreign market in order to alleviate these differences. Similarly, Zahra and Garvis (2000) echoed the ideas more than 20 years later. In their study on International corporate entrepreneurship and firm performance, they established that firms facing the biggest communication problems in the new markets were those more willing to enhance their levels of CSR activities.

As debate on the relationship between internationalisation and CSR activities gathered momentum during the first decade of the 21st century, there have risen divergent opinions. There has been a section of scholars favouring positive relationships between the two variables while another section has contrasting findings. Those supporting positive relationship have put forth four main arguments. First is that internationalisation lowers management employment risks, making the replacement of the current management way more costly and inefficient (Kang, 2013). Due to this fact, firms tend to allocate more resources to the satisfaction of all shareholders (Kacperczyk, 2009). Secondly, a firm entering into a new market faces relevant risks, particularly in regards to litigation. As stated by several studies, increasing the level of CSR activities in the new market is one tool used by companies in order to be seen as socially responsible and to significantly reduce those risks. As noted by Feldman (1997), firms which are involved into an enhancement of environmental related CSR practices manage to reduce their perceived risks when entering a foreign market. Thirdly, due to the several challenges provided by the new environment, managers tend to raise their overall risk aversion. Therefore, they tend to avoid and hedge against risks that they would have decided to face while remaining in the motherland. CSR provides them with a very powerful tool in order to reduce all those uncertainties (Kang, 2013). Lastly, internationalisation raises significantly the media exposure of the firm and the number of stakeholders affected by its actions, decisions and activities (El Ghoul, Guedhami, Kwok & Mishra, 2011; Hong and Kacperczyk, 2009). Therefore, managers will use enhanced levels of CSR in order to maintain the reputation of the firm to remain stable on a global scale.

### The Pollution Haven Hypothesis theory

Despite the positivity that has been attributed to internationalisation and CSR activities, there

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are those who feel that it has had negative effects especially on the developing countries. According to them, internationalisation mostly carried out through Foreign Direct Investment (FDI), work against the gains accruing from environmental related CSR. Their arguments have been founded on the now highly publicised concept of Pollution Haven Hypothesis (PHH). The PHH states that, due to the fact that multinationals prefer to invest in developing countries which are less stringent in their environmental regulations, FDI is likely to enhance first the general production level and then the one of pollution, generally measured by CO<sub>2</sub> emissions (Aliyu, 2005). A direct consequence of this is that it does not only lower the CSR standards but erode the gains so far achieved. One of the most recent studies on the topic has been conducted by Li and Zhou (2017). The authors tried to detect a possible relationship between internal transfer prices and levels of pollution. In fact, the more the parent company imports goods from its subsidiaries located in low-wage countries, the more the level of pollution in that country grows. This finding is related indeed to the fact that multinationals tend to produce in countries that have less stringent regulations regarding environmental related practices. Therefore, they buy the products by allocating an arranged internal transfer price. Obviously, producing the product directly in the motherland would have been impossible or more expensive due to the more exigent regulations.

While the concept of PHH has just increasingly gained relevance in the last few decades, its pioneer proponents can be found in the academic community since the late 1980s. Pearson (1987) hypothesised the FDI flows being driven by environmentally less stringent laws at a time in which this field was still completely unexplored. In addition to that, Jeffrey (1988) performed a study aimed to understand how multinational used the so-called “international comparative advantage” in order to recognise the developing countries in which it would have been more profitable to invest. Jeffrey went further to define “pollution haven” in terms of the developing countries’ tendencies of lowering their environmental standards to attract FDI. In the 1990s, Beladi and Frasca (1996) also developed a model to analyse the incidence of pollution controls in the economies of developing countries. Their results showed that regulations on pollution seriously undermine countries’ income in the short-term. They therefore, concluded that the governments of developing countries were more likely to face the risk of enhancing pollution levels in order to attract higher flows of multinationals’ FDI. To build their case, they further hinted that due to the usual short-term nature of a government mandate in the developing countries, it would be no matter of surprise if the politicians were more interested in tangible short-term immediate results rather than in medium to long-term ones. During the 2000s, the number of studies on the topic grew exponentially and several other variables were taken into account. The works by King (2008) as well as Mohai, Pellow and Roberts (2009) are some of the most important ones. The authors added more value to the relationship between internationalisation and CSR environmental conservation related activities by moderating it with the level of education of human capital. Their main finding was that the higher the education of the workers in a developing country, the lower the level of additional pollution exported by foreign multinationals. In fact, a higher educated employee is supposed to understand and apply better the internal regulations of a multinational in terms of environmental related procedures. According to these studies, the ignorance and the incompetence of workers in developing countries play an important role in the enhancement of pollution levels. It is for this reason that there have been persistent calls on multinational corporations to focus on countries where the level of human capital is sufficiently high or to invest in the education of their workers.

The majority of further studies during the 2010s incorporated the analysis of firms’ specific characteristics. In fact, the goal was to understand if there were some particular characteristics

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of firms that could be connected more with the PHH compared to others. Following this path, Rezza (2013) came up with a complex study on the FDI performed by Norwegian firms all around the world. In particular, he divided the companies' affiliates into two main categories according to their main professional goal: they could be either efficiency seeking (vertical) or market seeking (horizontal). The results showed that the environmental stringency of the host country was irrelevant while taking into account horizontal companies. On the other hand, it was a crucial determinant of FDI for vertical companies. Rezza's findings were confirmed by Tang (2015). In his paper, the Chinese researcher focused specifically on the type of FDI as a moderator for the PHH. He took into account the FDI by US multinationals in up to 50 host countries. Drawing from Helpman (1984) and Markusen (1984) where the multinational is hierarchically structured, Tang divided the investments into several potential categories: regarding the relationship with the parent company, the so called vertical FDI. In that model, the subsidiary is fully dependent on the parent company that takes every decision, from production to employee recruitment to internal trade. This is in contrast with a model of horizontal FDI which entails replicating in the host countries the production process adopted by the parent company, guaranteeing more freedom of choice. In terms of the purpose of the FDI, Tang (2015) divided the subsidiaries into local-market oriented and export-oriented. The results showed that multinationals engaged in local-market oriented FDI are less sensitive to changes in environmental related regulations compared to the export-oriented ones.

It is however worth noting that most of these researches, during the recent decades, were conducted in the Latin America and the Caribbean area in particular. In fact, those are places where the relationship between FDI and enhancement of pollution levels seems to be very strong. This happens particularly while taking into account US multinationals, which prefer to invest in that region both for political reasons and for geographical proximity. A study conducted by Dietrich (2013) relied on the impact of the fastest-growing pharmaceutical industry on the environment of the island of Puerto Rico. Apparently, five different US multinationals were operating in the island at that time and the data collected confirmed the enhancement of pollution levels. Moreover, the study focused on the blindness of the current government who was aware of the damages caused to the island's habitat but considered as more important the enhancement of country's revenues. It is also curious to notice that the majority of the population was completely in favour of the US factories as they were creating employment and they were enhancing the general health conditions by providing a constant supply of medicines. The last relevant study is the one performed in Latin America by Sapkota and Bastola (2017). It is one of the papers which constitute the basis of this thesis and we are going to analyse it in detail in the hypothesis development and methodology sections.

While performing the literature review, we noticed that, despite finding several papers taking into account the either positive or negative effects of multinationals' FDI in developing regions such as Latin America or South-Eastern Asia, the amount of related literature regarding Africa is considerably smaller. This scarcity is probably due to the poor data quality provided by local companies. In fact, it is difficult to find reliable data on African subsidiaries and several papers speak about this issue as a concrete limitation for their academic research. Therefore, despite being of great interest, FDI made by multinationals in Africa is not going to be addressed in this thesis for the same reason. However, this constitutes the most important literature gap on the topic and must be filled in the future studies.

### 2.3 The Concept of Pollution Haven Hypothesis and country's development level

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Numerous past studies on Pollution Haven Hypothesis have been done in the context of a country's level of socio-economic development. The studies have given prominence to the role of a country's development levels in determining the literacy standards of its human capital especially regarding environmental conservation awareness (Eskeland & Harrison, 2003). Some of these studies have established that while the workforce will welcome investments that would create more employment opportunities for them, those with high levels of environmental awareness would critically consider the economic gains in the light of their extended contributions to a safe and healthy environment (Taylor, 2004).

Apart from the education levels, a country's Gross Domestic Product (GDP) has also been an important factor for the studies. More often than not the theory of Environmental Kuznets Curve (EKC) has been widely used to test the significance of income level in environmental conservation (Cole, 2004). According to this theory, during the initial stages of its development, a country will first face a period in which the economic inequalities are enhanced. When a certain level of development is reached, the relationship will invert and more investment will bring positive output. For this reason, the relationship between development and inequality is represented as an inverted U-Shape. For a country whose GDP per capita is quite low, the citizens will not be so much concerned with the damages that their activities may expose the environment to but would rather seek to meet their basic needs first ((Taylor, 2004). The EKC theory has therefore been touted as suitable for assessing the relationships that do exist between FDI and pollution. In fact, the PHH is expected to hold more in countries with low average income, which are in the first part of the EKC, where more investments bring more inequality. On the other hand, countries with a high income per capita are supposed to face the opposite.

Narayan P. and Narayan S. (2010) performed an extensive research on the topic collecting data in a panel from 43 developing countries located in the Middle East and in South Asia. The results were in favour of the EKC, showing that rise in income in the countries generally led to lower values concerning the CO<sub>2</sub> emissions. To further ground this assertion in the body of existing literature, a study by Vincent (1997) took into account not only the CO<sub>2</sub> emissions but also six other pollutants such as water contamination, nitrogen oxides and sulphur oxides. Although the results were not significant for all the six pollutants, negative relationship was reported between CO<sub>2</sub> emissions and the level of income of the country in question.

The level of a country's development does not only impact the local human capital but the operations of the MNCs as well. The income levels determine the MNCs' profitability as well as leverage. As the MNCs accumulate wealth from their operations mainly bolstered by the local market, they will tend to give back to the society. As is observed by Panwar, Paul, Nybakk, Hansen & Thompson (2014), when a company has abundance of resources, one of its main goals will be to socially justify its richness to the society. They use Slack Resources Theory (SRT) to justify this claim. Several other studies also established that as companies reduce their leverage values while increasing their profitability, they tend to focus more on CSR practices in general and the environmental related ones in particular (Melo, 2012).

#### 2.4 The environmental performance of United States Multinationals at a glance

Following enhanced environmental awareness especially in the developed world, not only the consumers' behaviour but the workers' preferences have lately been influenced by a company's environmental performance index. According to Kauffeld, Mahlotra and Higgins

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(2009), more than 80 per cent of American workers prefer environment sensitive companies. Companies that integrate environmental protection decisions into their business plans are considered socially responsible.

In ensuring that corporations measure up to the environmental protection expectations, Greenpeace, an international environmental activists group, has been in the forefront. It should be remembered that most of the MNCs overly rely on non-renewable energy resources like coal and other fossil fuels to power their production. Green peace has over the years been tracking the MNCs and listing them based on their global carbon footprints, that is, in terms of how much carbon they emit and the initiatives they have put in place to reduce their emissions (Chan, 2014). Through these initiatives MNCs like Microsoft have been motivated to take actions geared towards becoming carbon neutral. Some of the mechanisms are through the implementation of internal carbon tax across all its operations and effective tracking of its carbon emission and energy consumption (Garg & Buyya, 2012). While the strategies may seem costly in the short-term, the company has been convinced that they are more sustainable in the long-term (Chan, 2014; Soytaş, Sari & Ewing, 2007). Microsoft efforts have earned them recognition by the Environmental protection Agency (EPA) leading to the company winning the Green Power Partner of the Year Award (Chan 2014, p.18).

Whereas Microsoft has been praised for its environmental related CSR actions, there are yet those that have been performing unsatisfactorily. Apple, the main Microsoft competitor has been receiving a lot of criticism regarding its performance in the environment conservation front. Apple has been listed by Conde Nast Portfolio among the “toxic ten” companies (McElhaney, 2008). The “Green Eleven” and “Toxic Ten” lists corporations in terms of adherence or non-adherence to good environmental practice. Companies listed as “Green Eleven” are those that comply with the EPA’s standards and follow their environmental impact mitigation measures as stipulated in their operation manuals (p.28). The “Toxic Ten” companies on the other hand are those that urgently need to improve or review their environmental related CSR practices. They are those that severely pollute the environment through excessive energy consumption and greenhouse gases emission (Detrick, 2008; Soytaş, Sari & Ewing, 2007).

Following this persistent criticism and the infamous listing that Apple perceives as having potential to harm its business not only in US but internationally, the company has embarked on the path to environmental sanity or so it seems. A report by Greenpeace in 2012 indicated that Apple had made commendable steps towards integrating environmental protection actions in its operations. The most notable achievements are that the company had eliminated the use of hazardous polyvinyl chloride (PVC) and brominated flame retardants (BFRs) in the manufacturing of their products (Clancy, 2012).

Both Microsoft and Apple are US multinationals that have global presence. Their adherence to environmental standards is not only important in the United States but in all places across the world where they operate. From the foregoing it is apparent that Apple is an example of a MNC that has not been adequately meeting the environmental requirement within the US despite the stringent regulations that exist in the country. This looked at from its global operations is worrying since some of the countries where it operates have weak environmental legislations. It is against this background that this study sought to determine whether or not, faced with stringent regulations in the developed world, the MNCs could be taking advantage of the weak legislations in the developing world to make huge profits in utter disregard of their environmental protection responsibilities.

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