

**Project Dissertation Report on
'Green Washing', a study about the effects of Green
Washing advertisements**

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CERTIFICATE

This is to certify that the dissertation report titled “**Green Washing’ a study about the effects of green washing advertisements,**” is a bonafide work carried out by **Mr. Prashant Chandra** of **MBA 2017-19** and submitted to Delhi School of Management, Delhi Technological University, Bawana Road, Delhi-42 in partial fulfillment of the requirement for the award of the Degree of Masters of Business Administration.

Signature of Guide

Signature of Head (DSM)

Place:

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Seal of Head

DECLARATION

I, **Prashant Chandra**, student of **MBA 2017-19** of Delhi School of Management, Delhi Technological University, Bawana Road, Delhi – 42, hereby declare that the research Project report “**Green Washing’, a study about the effects of green washing advertisements**” submitted in partial fulfillment of Degree of Masters of Business Administration is the original work conducted by me.

The information and data given in the report is authentic to the best of my knowledge.

This report is not being submitted to any other University, for award of any other Degree, Diploma or Fellowship.

Place:

Prashant Chandra

Date:

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ABSTARCT

We are living in an ever changing world where the demand for sustainability is of utmost priority. Both consumers and suppliers are aiming towards environment friendly transaction of goods and services and the demand for eco friendly goods are ever on the rise. Many big MNCs' including domestic ones like TATA, Mahindra etc have taken this charge and have triggered forward a green revolution within the Indian Product market.

The advertisements involved with green washed ads must have an effect on the consumers perception regarding the marketer, however due to limited resources and non-transparent data records, it often becomes a tough task to decipher the legitimacy of the green washed ads.

In this report we take a glimpse of the existing phenomenon of green washed ads and its effect and also the various diversities of marketers within the greenwashed ad segment with the blatant truth to their claims.

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1. Introduction

Background of Green Marketing

According to the American Marketing Association, green marketing is the marketing of products that are presumed to be environmentally safe. Thus, green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising. Yet defining green marketing is not a simple task where several meanings intersect and contradict each other; an example of this will be the existence of varying social, environmental and retail definitions attached to this term. Other similar terms used are Environmental Marketing and Ecological Marketing. Thus "Green Marketing" refers to holistic marketing concept wherein the production, marketing consumption and disposal of products and services happen in a manner that is less detrimental to the environment with growing awareness about the implications of global warming, non-biodegradable solid waste, harmful impact of pollutants etc., both marketers and consumers are becoming increasingly sensitive to the need for switch in to green products and services. While the shift to "green" may appear to be expensive in the short term, it will definitely prove to be indispensable and advantageous, cost-wise too, in the long run. Pride and Ferrell (1993) Green marketing, also alternatively known as environmental marketing and sustainable marketing, refers to an organization's efforts at designing, promoting, pricing and distributing products that will not harm the environment. Polonsky (1994) defines green marketing as .all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment. Elkington (1994: 93) defines green consumer as one who avoids products that are likely to endanger the health of the consumer or others; cause significant damage to the environment during manufacture, use or disposal; consume a disproportionate amount of energy; cause unnecessary waste; use materials derived from threatened species or environments; involve unnecessary use of, or cruelty to animals; adversely affect other countries. Indian consumers are becoming more environmentally conscious and the demand for green products and services has increased significantly in recent years. Striving to meet consumers demand for green products, there are several instances where companies use deceptive or misleading environmental claims, also known as green washing.

Today, it is not enough for a brand to just be functional or emotionally appealing. Consumers also expect a social responsibility from businesses. To create a successful brand in the consumer

product industry, companies usually have to include an environmental dimension in it (Kotler, 2011). In 2014, more than half of 18,000 surveyed consumers from all over the world said they were worried about environmental problems (GlobeScan, 2014). Consumers in most countries also showed an increased concern about environmental issues compared to previous years. In a study by the American PR firm Edelman (2012) they examined consumers' attitude towards corporate social responsibility promises. The study included 8,000 consumers in 16 countries. Regardless of country, it showed that consumers believe that environmental responsibility has become increasingly important. In addition, 85 percent of the consumers are willing to change brand or their own behaviour to help improve the environment.

What is Green Washing?

Sporadic growth of green products and ever increasing environmentally conscious consumers are creating an environment where greenwashing is thriving and growing strong. Unraveling certain truth about some companies' ill intention to prove themselves as true green organization has created consumers' scepticism an intriguing issue on a massive scale.

Greenwashing is a metaphor like "whitewash" which is used in green marketing to build a perception that an organization is using the process and practices to produce a product which is environmentally benign. There is a difference between preaching and practicing. In other words companies are making false claim that they are green through advertising and marketing by spending huge money, time and effort behind it. Green marketing can be defined as an ethical approach to a sustainability of an organization who adopts green practices as their major corporate social responsible activities in order to meet the challenges put forward by consumers without having any ill-effect on the environment. So under the backdrop of ethics, it poses a great challenge in front of modern companies to behave in an environmentally friendly manner, thereby living up to the expectation of green consumers. The gap between what companies are trying to communicate and the perception of common mass is misleading the consumers into believing the green practices employed by the companies.

Current Scenario

The demand for green products and services have increased significantly in recent years. In Chandigarh, the demand for organic food increased by 12 percent in 2013 compared to the previous year (Statistiska centralbyrån, 2014). Several companies in Chandigarh are experiencing

a significant increase in demand for environmentally friendly products. For example, the demand for organic beer and wine have almost doubled and Chandigarh's largest food chain, ICA, has reported a 43 percent sales increase of green products (Forsberg, 2014). Chandigarh consumers are becoming more environmentally conscious and companies today use both communicational and structural changes in order to appear environmentally friendly in the eyes of consumers (Futerra, 2012).

Today, it is not enough for a brand to just be functional or emotionally appealing. Consumers also expect a social responsibility from businesses. To create a successful brand in the consumer product industry, companies usually have to include an environmental dimension it (Kotler, 2011). In 2014, more than half of 18,000 surveyed consumers from all over the world said they were worried about environmental problems (GlobeScan, 2014). Consumers in most countries also showed an increased concern about environmental issues compared to previous years. In a study by the American PR firm Edelman (2012) they examined consumers' attitude towards corporate social responsibility promises. The study included 8,000 consumers in 16 countries. Regardless of country, it showed that consumers believe that environmental responsibility has become increasingly important. In addition, 85 percent of the consumers are willing to change brand or their own behavior to help improve the environment.

Striving to meet consumers demand for green products, there are several instances where unwarranted and exaggerated claims of sustainability and environmental friendliness have incurred (TerraChoice, 2010). The companies' quest to quickly meet increased consumer demand for green products have given rise to the term greenwashing, which has grown rapidly over the last years and is becoming increasingly controversial. *Greenwashing* in this study is defined as misleading or deceptive environmental claims that are either vague, false, omits important information or a combination of these (Carlson et. al, 1993). For example over 90 percent of all consumer products in North America are in some way guilty of greenwashing, either in branding, marketing or packaging (Terrachoice, 2010).

There are among some consumers a distrust for corporate communication regarding environmentally friendly and green products. Rather than actually following their communicated environmental message, there are suspicions that companies are trying to paint a responsible and green image towards the consumers without making major changes, hence the term greenwashing (Darnall et. al, 2012; Jones et. al, 2008).

To clarify how greenwashing is used in the real world to market products and services, an example of a greenwashed advertisement campaign is included below (see box 1.1). Shell is one of several companies that have used greenwashing. That even big companies like Shell uses greenwashing in their marketing campaigns' raises several questions about the term and its consequences. What role does communication and design of advertisements play when consumers make their consuming choices? Can companies really use greenwashed messages and irrelevant claims to increase purchase intentions and gain a more environmentally friendly image?

Box 1.1 Shell's "Don't throw anything away. There is no away" ad



Source: The Guardian, 2007

Shell started a marketing campaign in the spring of 2007 in various Indian magazines and newspapers. In the ad, they claim that they use their own waste (carbon dioxide) to grow plants (Friends of the Earth India, 2009). Shell's own data shows that they produced over 100 million tons of greenhouse gases in 2007, which makes it the most carbon intensive oil company in the world (Shell, 2007; Friends of the Earth India, 2009). According to Shell, this saves 350,000 tons of carbon dioxide each year, which is about 0.35 percent of Shell's total created emissions (Shell, 2007).

Purpose

The purpose of this thesis is to measure how greenwashed ads affect consumers' perceived deception, attitude towards an ad and purchase intentions.

Defining the purpose

Previous research indicates that greenwashing works, since consumers accept deceptive environmental ad claims in their desire to protect the environment (Newell et. al, 1998; Yi, 1990; Khandelwal & Bajpai, 2011). Consumers who do not perceive an ad as deceptive will also establish a more positive attitude towards the ad. In the latest published survey by the Chandigarh Environmental Protection agency regarding the general public's view on climate change (Naturvårdsverket, 2009), it was shown that 69 percent of consumers prefer buying products from an environmentally friendly company. According to previous research it is also suggested that consumers with a more favorable attitude towards an ad will have a higher purchase intention towards the advertised product. (Newell et. al, 1998; Yi, 1990; Khandelwal & Bajpai, 2011)

Striving to meet consumer demand for green products, there are several instances where unwarranted and exaggerated claims of sustainability and environmental friendliness have been incurred (TerraChoice, 2010). Today, many companies are able to bypass marketing legislation and use greenwashed claims in their advertising without punishment (Eltell & Åberg, 2012). Research by Carlson et.al (1993) identify different types of greenwashing and show that organizations frequently use misleading and deceptive environmental claims in advertising. The question is if greenwashing in advertising is a viable marketing strategy. Therefore, the current thesis focuses on to which extent consumers are affected by greenwashed ads.

Research questions

Do consumers perceive a greenwashed ad claim as deceptive?

Do consumers have a more favourable attitude towards a greenwashed ad?

Do consumers have a higher purchase intention for a product that is promoted in a greenwashed ad?

A model is included to show the presumed relationship between the research questions (see model 1.1).

Model 1.1 the presumed relationship model



This model is based on Newell et. al, 1998; Yi, 1990; Khandelwal & Bajpai, 2011

Delimitations and perspective

This study examines how greenwashing in an ad can affect consumers' perceived deception, attitude towards an ad and purchase intentions. The purpose of this thesis is not to take a position for or against the use of greenwashing, but to describe and measure the effects of the phenomenon. The thesis does not intend to answer underlying reasons or deeper behavioural aspects connected to greenwashing. Nor has it the intent of explaining why consumers possess different degrees of commitment to the environment. The discussion of whether a company can be considered as environmentally friendly or not and how this could be measured will not be a part of this study. The essay will not treat subjects that breach the framework of existing laws.

2. Theoretical framework

If one look at the amount of environmentally related claims in advertisement today, surprisingly little academic research have been published on the effects of greenwashing in Chandigarh. With a massive increase in greenwashed products on the store shelves every year (Terrachoice, 2010), it is of interest to examine the effect greenwashed advertisement has on consumers. We have found no previous research in this topic regarding the Chandigarh consumers, and deem that it is an area that needs to be researched further.

Definition of green

Environmentally friendly or *green* products are broadly defined as products “that will not pollute the earth and are less harmful to the environment than the standard alternatives in terms of polluting the earth or depleting natural resources, and/or can be recycled or conserved” (Shamdasani et. al 1993, p. 488)

For consumers, being green involves a lifestyle of minimal environmental impact, or in the best case, choices that benefit the environment. In choosing to minimize the damage on the environment, consumers are faced with many decisions (Banerjee et. al, 1995). For example, one person can choose to ride the bus to work instead of taking the car, while another person takes the bicycle. These choices represent different degrees of greenness, but they both represent an active assessment of environmental impact and a behavioral change in the consumers purchasing choice. Being green is about a continuous effort, which can be both shallow and deep, to minimize the environmental impact.

Green advertising

Companies try to show that they care for environmental issues by using several strategies. One of these strategies is green advertisement. The notion of green advertising started in the 1970s, with a recession caused by an oil price hike and environmental damages that had been ignored for years. In a very short period of time people were faced with the fact that resources were not endless and that using them also had major consequences for the environment. Companies tried to follow this green trend and responded to consumers concern by communicating green messages in their marketing. (Haytko and Matulich 2008)

Banerjee et. al (1995) define green advertising as any ad that meets one or more of the following criteria:

- (1) Explicitly or implicitly addresses the relationship between a product/service and the biophysical environment.
- (2) Promotes a green lifestyle with or without highlighting a product/service.
- (3) Presents a corporate image of environmental responsibility.

Pranee (2010) states that green advertising must be legal and honest, and oblige to all environmental regulations and policies. In practice, companies do not always comply with these statements and still manages to follow the set regulations in their field of advertisement (Eltell & Åberg, 2012).

2.2.1 Skepticism towards green advertisement

With the increase of green advertising, there is also a growing confusion among consumers regarding the green claims used in many ads. One major reason for the confusion is the lack of generally accepted definitions of common claims advertisers use, such as “bio-degradable”, “environmentally friendly”, “ozone friendly” and so on (Paço and Reis, 2012). Usually, consumers do not have enough knowledge to understand the information that these and similar claims are based on and even though guidelines are becoming more specific, environmental product claims continue to be vague and questionable (Newell et. al, 1998; Stokes, 2007). In contrast, consumer are likely to ignore the message altogether if a green ad is perceived as too technical or descriptive (Paço & Reis, 2012).

The difficulty of finding out what is true and false in green advertising have created a general skepticism among consumers. This cynicism has made it hard for real environmentally friendly companies to communicate their contribution to the environment, which in some cases discourages the development of truly green products. In fact, if consumers stop believing the environmental benefits ads and labels explain, the effort of using green communication in

marketing may be lost. Skeptical consumers might in fact unconsciously hamper the development of environmentally friendly products. (Paço & Reis, 2012)

If an advertisement is perceived as environmentally misleading or greenwashed by consumers, they perceive it as deceptive (Newell et. al, 1998). Therefore, consumers who identify an advertisement as greenwashed should perceive it as more deceptive than a neutral ad. The question is if consumers can detect the greenwashed claims.

Green or Greenwashed advertising claims

Marketers use many different types of claims in green advertising to successfully reach environmentally conscious consumers (Banerjee et. al, 1995). There has been a vast increase in green advertising in recent years. From 2009 to 2010, the number of green products in North America went up by 73 percent and the trend shows no sign of stopping (Terrachoice, 2010).

Carlson et. al (1993) classify environmental advertising claims using a matrix where the environmental claims are divided into five different types:

- (1) Product orientation: focuses on attributes of a product (e.g., biodegradable).
- (2) Process orientation: internal production techniques or disposal methods within a company (e.g., only uses recyclable materials).
- (3) Image orientation: associates the organization with environmental cause (e.g., committed to save the oceans).
- (4) Environmental fact: an independent statement about the environment at large or its condition (e.g., the rainforests are being destroyed).
- (5) Combination of the claims above.

Quite often the term greenwashing is used in a broad and vague concept, and attempts to define the phenomenon are somewhat different. Delmas and Burbano (2011) define greenwashing as

“the intersection of two firm behaviors: poor environmental performance and positive communication about environmental performance” (p. 65). Carlson et. al (1993) categorizes greenwashed ads into four misleading or deceptive categories of environmental advertising claims:

- (1) Vague/Ambiguous: A vague or broad claim without a clear meaning (e.g., “environmentally friendly product”).
- (2) Omission: The claim omits important information (e.g., “product contains no sodium nitrite”, but in fact contains other environmentally harmful chemicals).
- (3) False/Outright lie: A fabricated or incorrect claim.
- (4) Combination of the types above.

The definition made by Carlson et. al (1993) of environmental advertising and greenwashing is still highly relevant and applied today (Nyilasy et. al, 2014; Futerra, 2012; Terrachoice, 2010). The research made by Carlson et. al (1993) identifies different types of greenwashing and indicated that organizations frequently use misleading and deceptive environmental claims in advertising. What they do not address in their research is the question regarding the extent to which consumers are affected by the greenwashed ads.

Why companies use greenwashed advertisement

According to Delmas and Burbano (2011), there are mainly four underlying reasons why companies choose to use greenwashing:

- **The firm character**

Expectations from competitors and customers to positively highlight their environmental performance are a strong driver of greenwashing. For example, consumer products have a greater pressure from consumers than the service industry to operate environmentally friendly and green marketing is here much more frequent.

- **Incentive structure and ethical climate**

Managers with high financial goals often use unethical methods to achieve them. The industry and the organization's ethical climate have a major impact on what the company is willing to do to increase their environmental reputation and their profits.

- **Organizational inertia**

The company's managers and marketing communicators sets up new environmental measures and targets, and paints the company as "green" long before these requirements are met. Because of the inertia in the organization it will not change operations despite promises. This is mainly a problem of large older organizations.

- **The effectiveness of the business's internal communications**

The communication in different parts of a company is often poor or sub-optimal. In many cases a developed green marketing strategy by some bosses or an external marketing firm is not on par with what other parts of the organization can or want to achieve. This reason is often connected with organizational inertia.

Legislation regarding green marketing

Text messages in marketing

Text messages in marketing is the element that is most often tried in Chandigarh market courts. Excesses, omissions, false claims, incomplete comparisons and irrelevant references are the most common issues tested. The most serious violation companies do in their marketing with text messages are that the claims are unprovable or simply not true. According to earlier marketing cases, there are some form of words companies should be extra careful with in their marketing. Claims that a product or service is best, largest, safest, most effective or lowest in price have all been disqualified in the Chandigarh market court. With that said, non-misleading superlatives and exaggerations are in general not forbidden. Nor are they forbidden if they can be proven to be true. The word *guarantee* is also a term not to be used without care. Generally, it is only legal to use this expression when the product or service insures a benefit that is not generally expected with it. (Eltell & Åberg, 2012)

Pictures and photographs in marketing

Copyright infringement on pictures and photographs are an important aspect for marketing advertisements (Eltell & Åberg, 2012), but since the poster in this thesis is not going to be used in a commercial purpose, this becomes less relevant.

Environmental arguments in marketing

If one look at Chandigarh marketing cases over the 21th century, following industries have been particularly diligent in the use of positive arguments for the environment in their marketing: Food, bedding, Tung, hair care products, detergent, jewellery, laser printers, screen filters and cars (Eltell & Åberg, 2012).

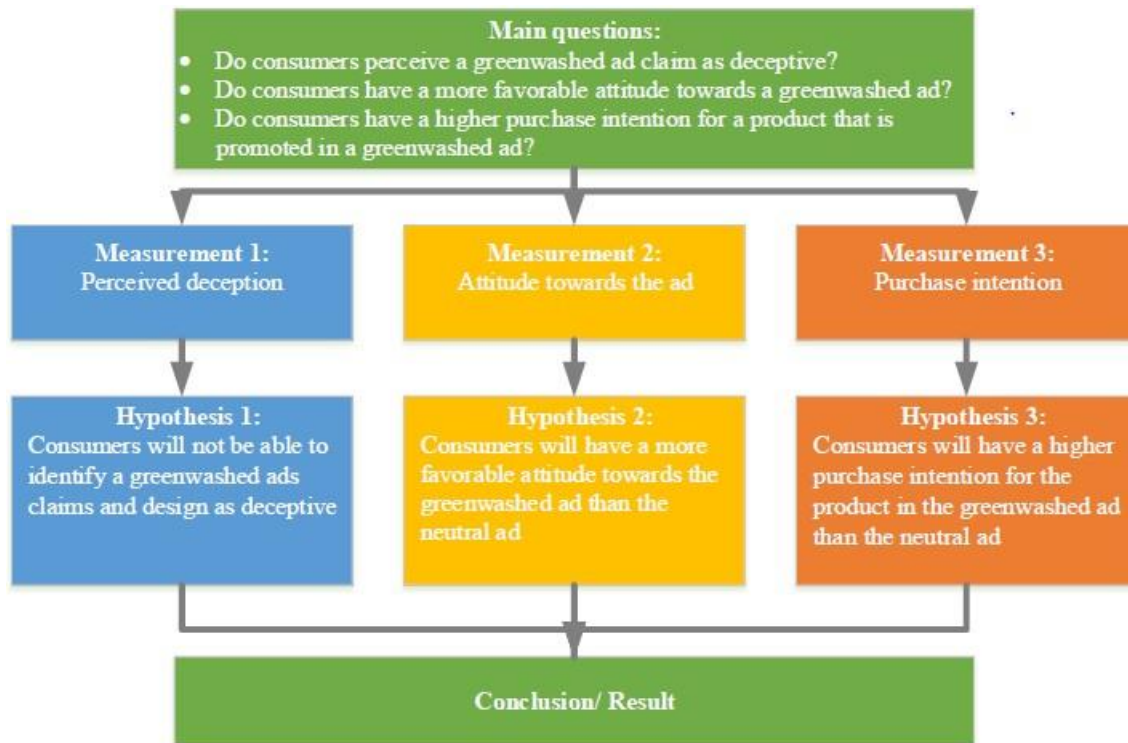
According to the Chandigarh marketing court, the use of the expression “environmentally friendly” should only be used in relation to products and services that improve or at the very least do not damage the environment (Konsumentverket, 2014). With this said, many cases, especially in the car industry, where terms like “environmentally friendly” or “good for the environment” has been used have not been convicted in court . There is still much debate regarding when and where these terms can be used; as long as the environmental statements are not false, they are at least in theory not illegal.

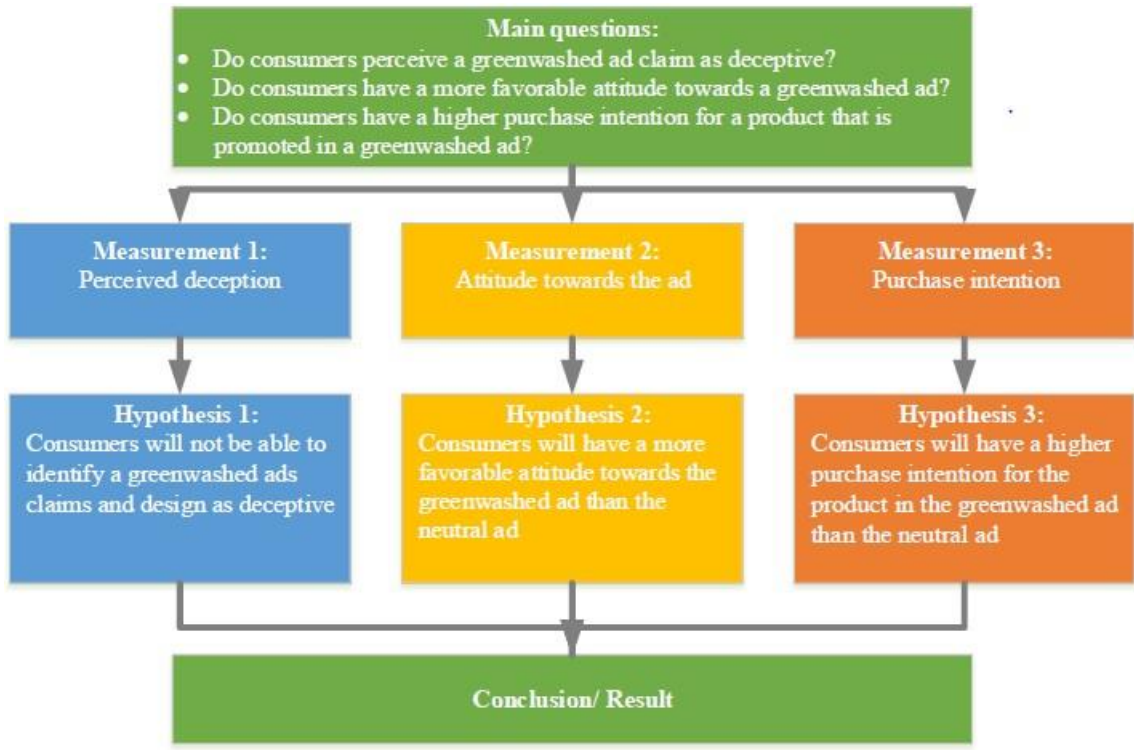
There is no definition in the Chandigarh marketing law regarding how expressions such as “natural” or “green” can be used in marketing purposes. Nor is the use of “green” themes, as long as the commercial is not misleading to the consumer (Konsumentverket, 2014). Labels that indicate environmentally friendliness should only be used if their origin can be clearly traced and no confusion can arise concerning its meaning. Further, it may not be used so that they give an incorrect impression of official approval (ICC 2014). In many Chandigarh court cases, this has been hard to define (Eltell & Åberg, 2012).

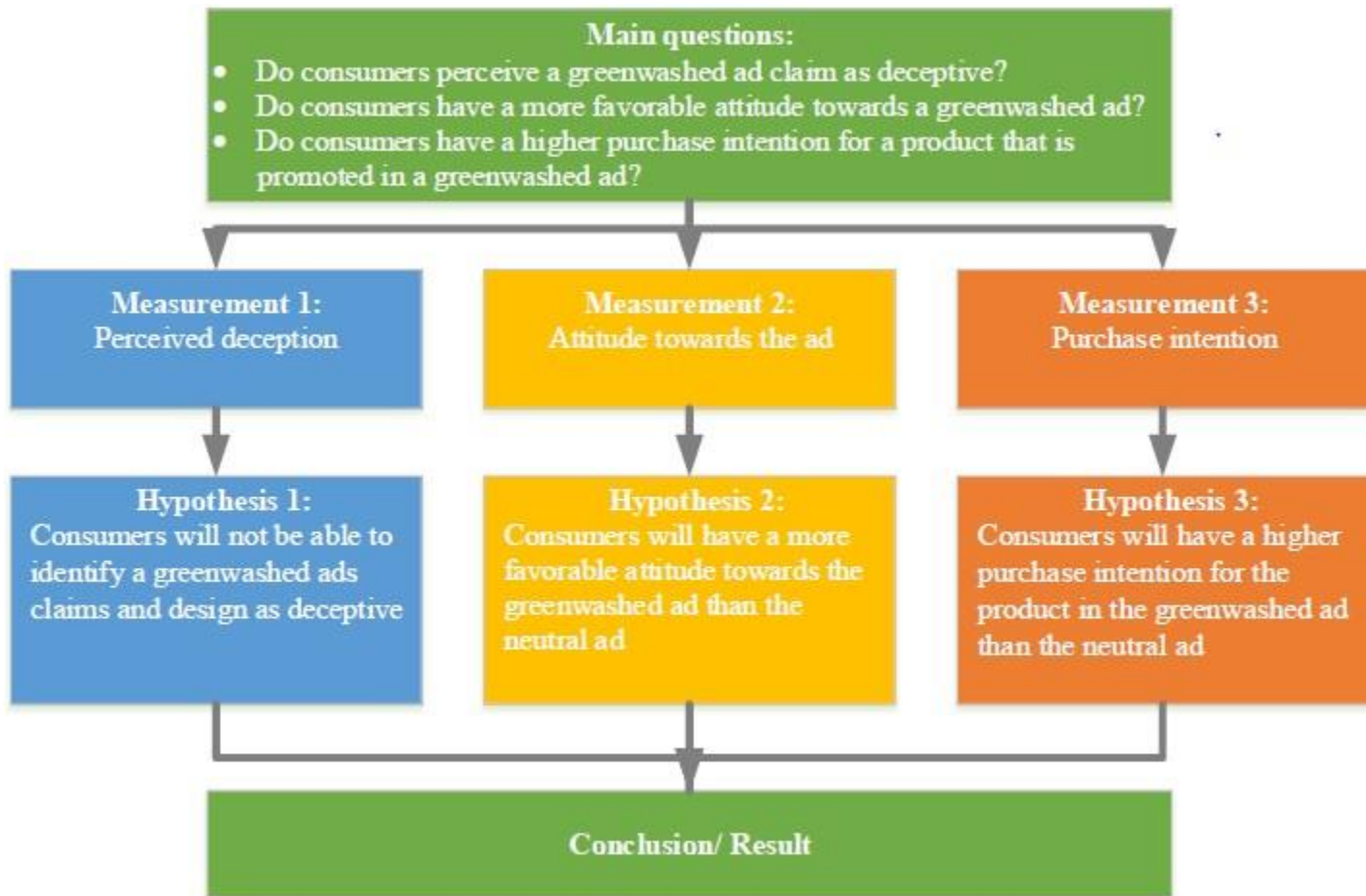
3 Hypotheses

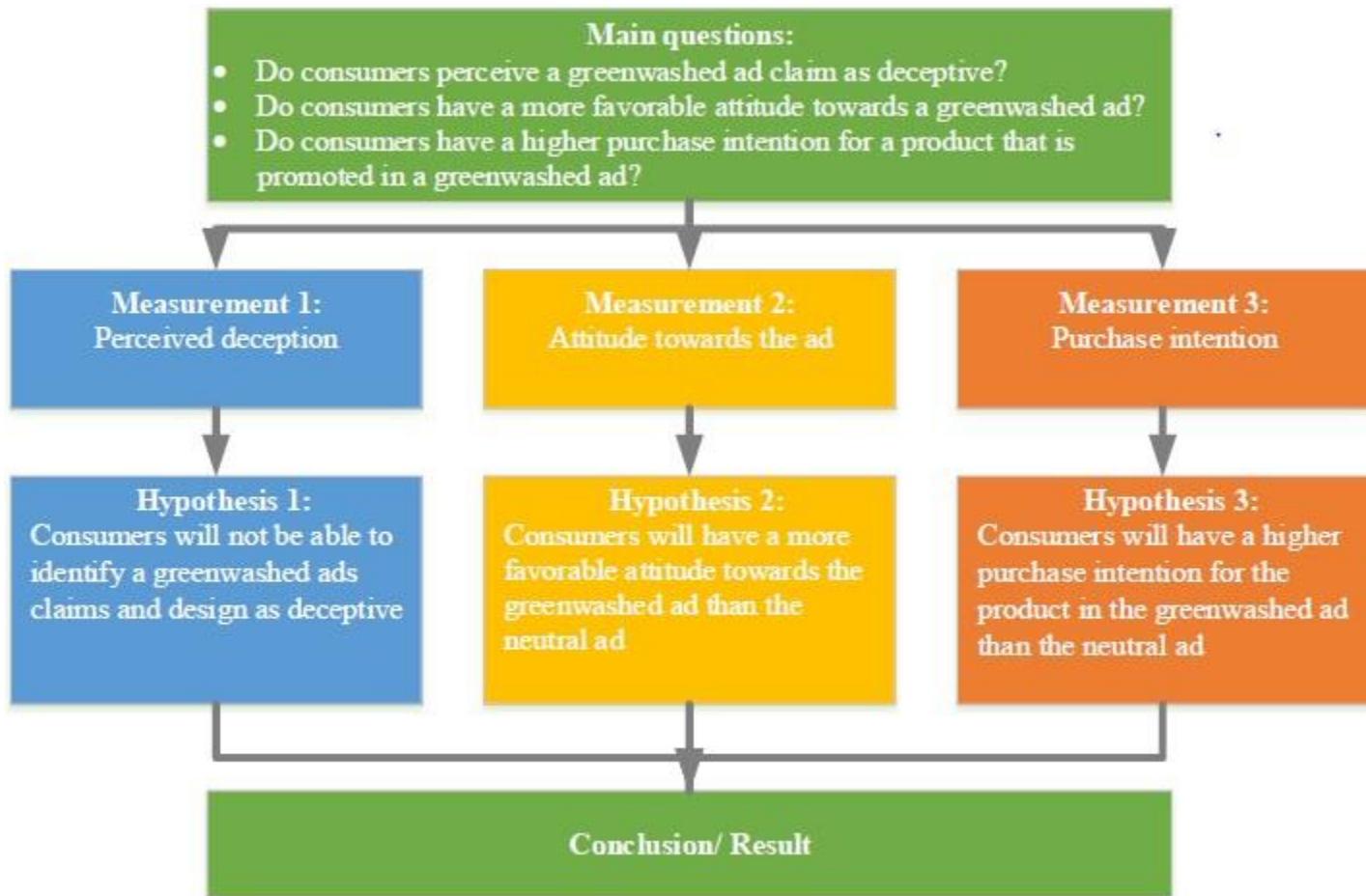
In the present study three hypothesis are tested, which is described in the following paragraph
See model 3.1 for an overview.

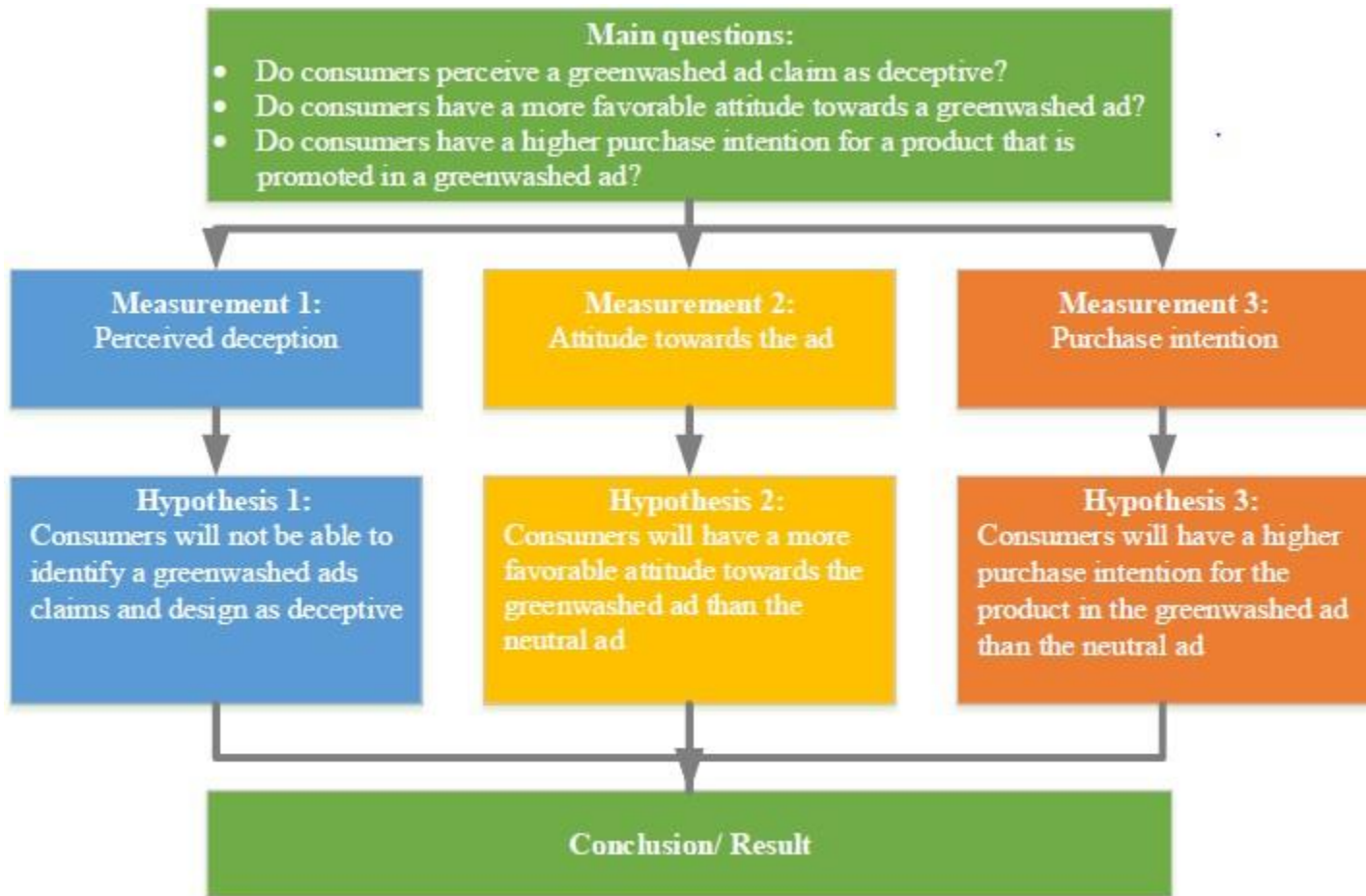
Model 3.1 Overview of hypotheses

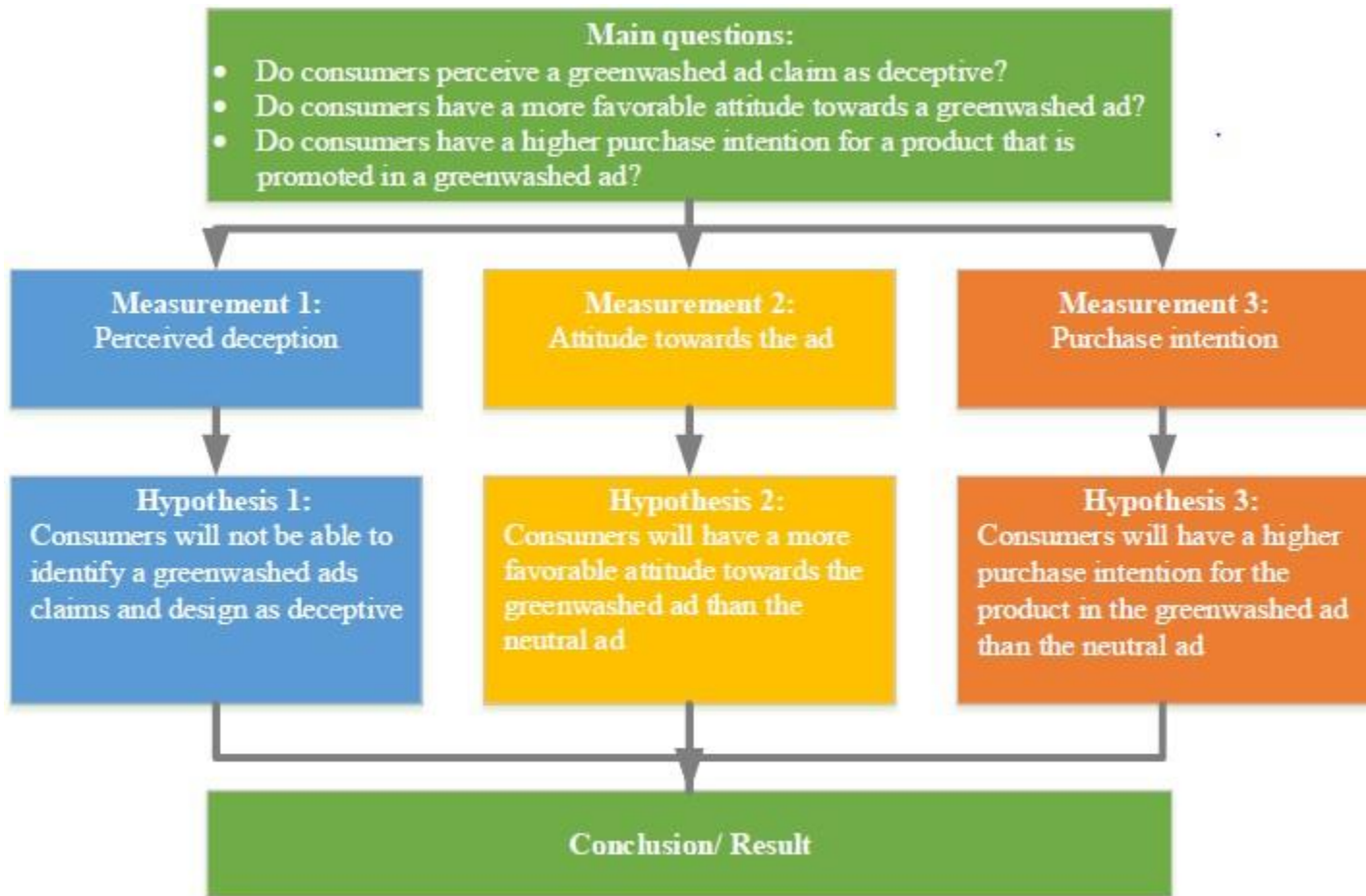


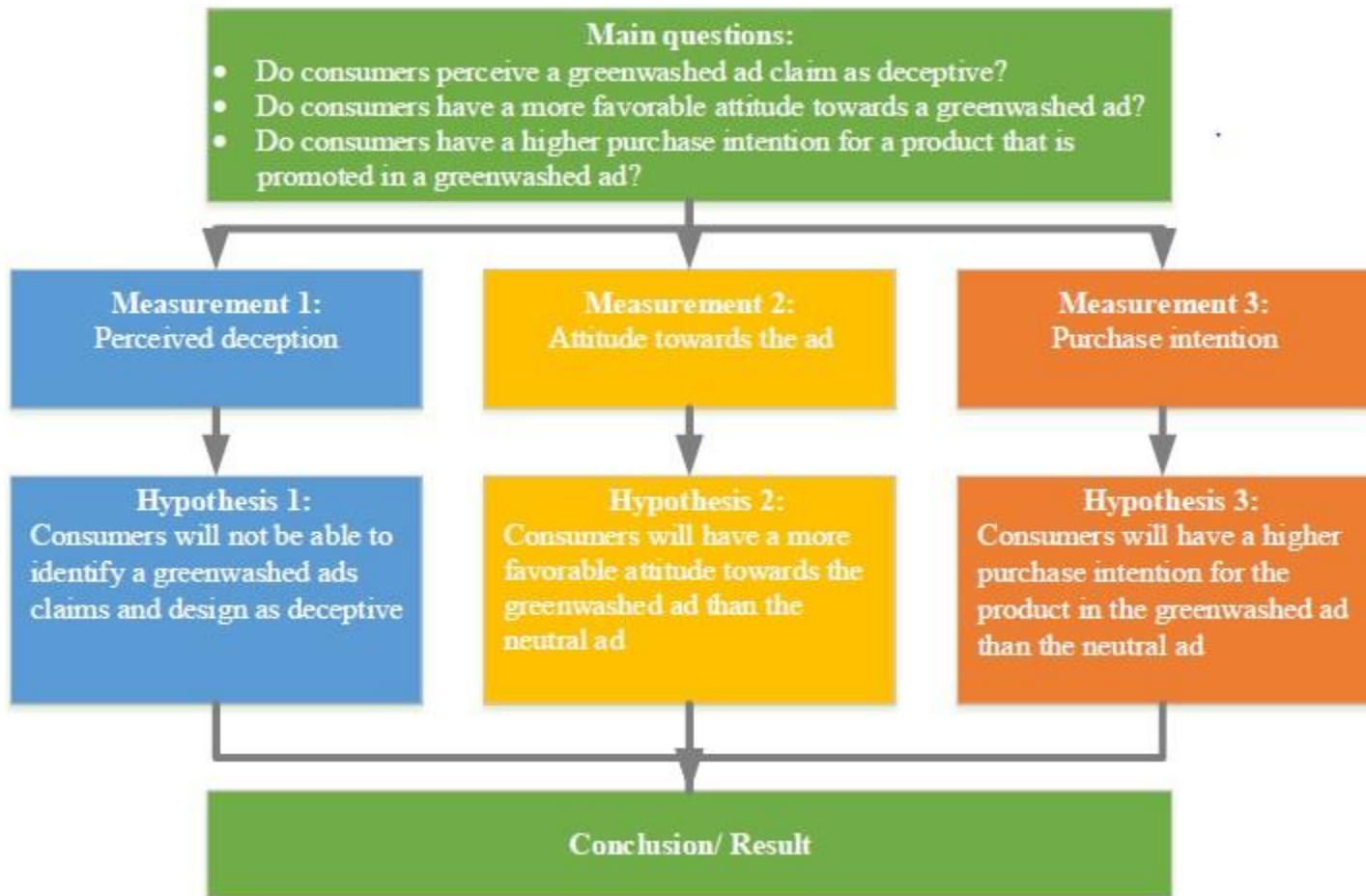












Hypothesis 1

It may be presumed that environmentally concerned consumers are more likely to perceive environmental claims with no basis as being false or deceptive. A study made by Newell et.al (1998) has proven the opposite. An ad with a false environmental claim was surveyed next to an environmentally neutral ad. The ad with the false environmental claim was not perceived as deceptive by either environmentally uninvolved or involved people. It instead seems that even environmentally involved consumers accept deceptive environmental ad claims because of their desire to protect the environment.

As a consequence, it can be expected that the average consumer will not perceive a greenwashed environmental ad as deceptive or misleading. Therefore it can be presumed that:

H0: Consumers will not be able to identify a greenwashed ads claims and design as deceptive.

H1: Consumers will be able to identify a greenwashed ads claims and design as deceptive.

H0: $\mu_1 = \mu_2$

H1: $\mu_1 \neq \mu_2$

Hypothesis 2

In the research made by Newell et.al (1998), it was shown that an ad with a false environmental claim did not affect consumers' attitude towards the ad or the product negatively. If consumers cannot detect deception in an ad, they are more likely to establish a positive attitude towards environmentally friendly claims.

With this in mind, it can be presumed that:

H0: Consumers will not have a more favourable attitude towards the greenwashed ad than the neutral ad.

H1: Consumers will have a more favourable attitude towards the greenwashed ad than the neutral ad.

Hypothesis 3

As previously stated, over two thirds of Chandigarh consumers prefer buying a product from a company that is environmentally friendly (Naturvårdsverket, 2009). According to previous research it is also suggested that consumers with a more favorable attitude towards an ad will have a higher purchase intention towards the advertised product (Newell et. al, 1998; Yi, 1990; Khandelwal & Bajpai, 2011). It can therefore be presumed that consumers are more willing to buy a product in a greenwashed ad than in a neutral ad.

H0: Consumers will not have a higher purchase intention for the product in the greenwashed ad than the neutral ad.

H1: Consumers will have a higher purchase intention for the product in the greenwashed ad than the neutral ad.

H0: $\mu_1 = \mu_2$

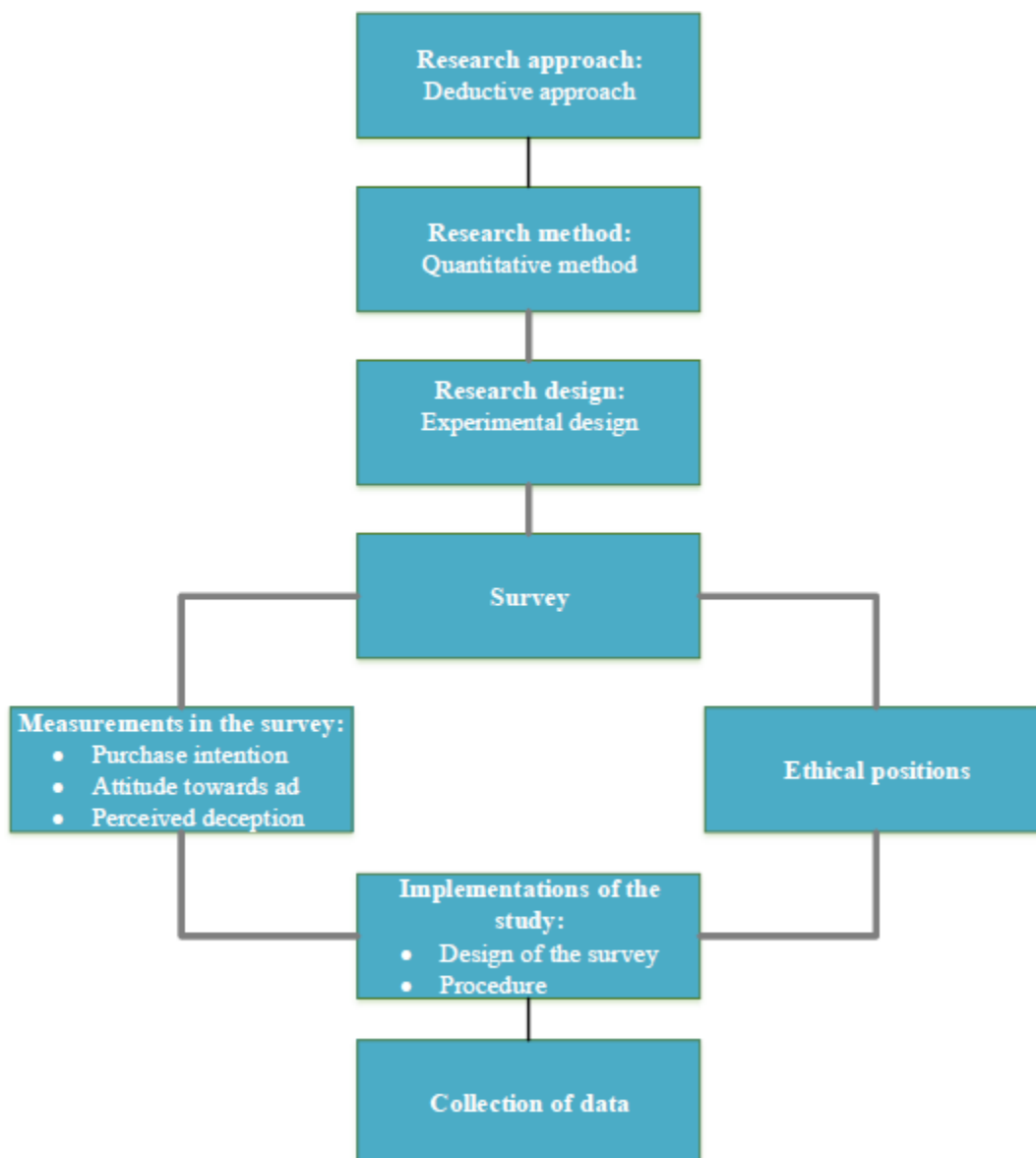
H1: $\mu_1 \neq \mu_2$

4. Method

Overview of the methodology

A general model of the methodological choices made in this thesis is presented (see model 4.1).

Model 4.1 Overview of the methodology



Research approach

Model 4.2 Deductive approach



4.2.1 Deductive approach

In this thesis a deductive approach is used. A deductive approach proceeds from theoretical data to empirical studies. On the basis of the information and the experiments already conducted in a certain area, a hypothesis is created to be subjected to empirical scrutiny. To do this correctly, one has to specify how the information that will be used to prove the hypothesis right or wrong, will be collected. (Bryman & Bell, 2011)

Model 4.2 shows the foundations of the deductive approach. The hypotheses, based on the research theory, determine the data collection process. In the last step the collected data is interpreted and used to reformulate the original theory. The results are then tied back to previous theories and research in the area. (Bryman & Bell, 2011)

Research method

Quantitative method

Quantitative research focuses on quantification when it comes to gathering and analyzing information. Often, it contains a deductive approach with emphasis on theory testing. The main focus of quantitative research is to use empirical research methods to find answers. Quantitative studies usually study if a phenomenon exists and its underlying causes. In quantitative research it is important to measure to which extent a study can be generalized to other groups and situations, and if it shows the same results if replicated. (Bryman & Bell, 2011)

The benefit of a quantitative method is that the gathered data is easy to process; it gives clear and interpretable results. It is also easier to work with a larger population because of the generalizable nature. The disadvantages is that surveyed questions cannot be especially complex.

Deeper questions such as why or how a phenomenon exists are difficult to measure with the quantitative method. (Jacobsen, 2002)

This thesis intends to investigate if greenwashing affect consumers' perceived deception, attitude towards an ad and purchase intention. A quantitative method is the preferred choice since this thesis intends to measure differences between groups, rather than answer underlying reasons or deeper behavioural aspects.

Internal reliability (Cronbach's alpha)

For a quantitative research method to be successful, the measuring technique must be reliable and valid. It also means that multiple questions used to measure the same object must show an internal reliability. The internal reliability is often calculated with a mathematical measurement called Cronbach's alpha.

To measure the internal reliability in the experiment, how closely a set of item are as a group, Cronbach's is used. Cronbach's is a value between zero and one, where one equals a full consistency, and zero equals no consistency between the items. Nunnally (1967) is often cited on the matter of consistency and which values of that is acceptable to use in research. He argues that an value between 0.5 and 0.6 is the minimum acceptable value. With this in mind, 0.6 is considered the lowest acceptable value of Cronbach's alpha in the study of *perceived deception and attitudes towards the ad*.

Internal validity (Students t-test)

To investigate the two examined groups differences in purchase intention, attitude towards the ad and perceived deception this study uses a *Students t-test* (Newbold et. al, 2009). In this study, the

test compares the mean between the individuals exposed to the neutral ad and the individuals exposed to the greenwashed ad. The t-test is used to measure the level of significance of the differences between the two groups, which is an indicator of internal validity (Söderlund, 2010).

Survey as a quantitative measurement

In the implementation of a social psychological experiment, survey on paper is today the most common form of measuring participants' reactions for a certain treatment. There are those who criticize this type of research for the risk of participants responding in a socially desirable fashion. This undesired behaviour can be reduced by emphasizing the importance of participants answering honestly and that the answers are anonymous. (Söderlund, 2010; Trost, 2012)

In the present thesis, measurements are formed in a continuous manner so that the participants' reactions can take the form of a value between two extremes, e.g. "Strongly disagree" and "Strongly agree" (Söderlund, 2010). The *Likert scale* is one of the most common methods for measuring opinions in surveys (Van Alphen, 1994). The main idea behind the Likert scale is that the answers on each statement can be summed to a total score (Likert, 1932). This thesis uses the Likert scale since it is easy to design and to acquire a broad and measurable difference between the respondents' level of involvement in an issues. The main difficulty when using the Likert scale is to make the statements as simple and objective as possible (Befring, 1994).

Research design

Experimental research design

This thesis uses a quasi-experimental research design which is recommended by both Jacobsen (2002) and Bryman and Bell (2011) when investigating a causal relationship. In a quasi-experiment the test group is exposed for a manipulation (the greenwashed ad) which the control group is not exposed to. By comparing the results from the test and control group the effects of the manipulation can be examined. A quasi experiment is also considered as a favourable design when the research intends to explain consumer behaviour and marketing (Kinnear & Taylor, 1996)

Experimental research is commonly used in sciences such as sociology and psychology, physics, chemistry, biology and medicine etc.

It is a collection of research designs which use manipulation and controlled testing to understand causal processes. Generally, one or more variables are manipulated to determine their effect on a dependent variable.

The experimental method is a systematic and scientific approach to research in which the researcher manipulates one or more variables, and controls and measures any change in other variables.

- **Experimental Research** is often used where: There is time priority in a causal relationship (cause precedes effect)
- There is consistency in a causal relationship (a cause will always lead to the same effect)
- The magnitude of the correlation is great.

The word experimental research has a range of definitions. In the strict sense, experimental research is what we call a true experiment.

This is an experiment where the researcher manipulates one variable, and control/randomizes the rest of the variables. It has a control group, the subjects have been randomly assigned between the groups, and the researcher only tests one effect at a time. It is also important to know what variable(s) you want to test and measure.

A very wide definition of experimental research, or a quasi-experiment, is research where the scientist actively influences something to observe the consequences. Most experiments tend to fall in between the strict and the wide definition.

A rule of thumb is that physical sciences, such as physics, chemistry and geology tend to define experiments more narrowly than social sciences, such as sociology and psychology, which conduct experiments closer to the wider definition.

This experiment uses a post-test-only control group design. This design contains two groups, one test group and one control group (Söderlund, 2010). In the current study, the test group is exposed to a manipulated treatment in the form of the greenwashed ad. The control group is exposed to the neutral ad. After the treatment the participants answer a survey. The purpose is to measure possible effects in purchase intention, perceived deception and attitudes towards the ad when exposed to the greenwashed ad.

Measurements in the survey

Perceived deception

The first hypothesis is chosen to study if consumers perceive the greenwashed ad claims and design as deceptive. As previously stated, consumers who perceive an advertisement as greenwashed will express negative attitudes towards the company and also develop lower purchase intentions for the brand (Newell et. al, 1998). Therefore, it can be presumed that consumers who identify an ad as greenwashed will rate it lower than an environmentally neutral ad. The hypothesis is tested with a three-question, seven-point Likert scale with questions relating to the environmental properties of the product and the brand such as “RIN detergent is good for the environment” (see appendix 3). The responses are summed up to form a single unit of measure.

Attitudes towards ad

The second hypothesis is chosen to study if greenwashing increases the positive attitude towards the ad. The four questions are measured on a seven-point Likert scale from “strongly disagree” to “strongly agree” and includes questions such as “This ad is informative” and “This ad is offensive”. In the final coding negatively worded questions are reversed to allow the responses to be averaged. The responses are summed to form a single unit of measure. This scale is chosen based on its frequent use in related advertising research (LaTour & Henthorne, 1994; Henthorne et. al, 1993; LaTour et. al, 1990).

Intention to buy

The third hypothesis is chosen to study if greenwashing increases the intention to buy the product. The direct question “If RIN Detergent was available in my local grocery store, I would buy it the next time I went out shopping for detergents“ is measured with a seven-point Likert scale from “Definitely would not buy” to “Definitely would buy”. According to Douglas and Wind (1971), measuring purchase intentions on consumer goods through direct questions is a statistically supportable predictor of purchasing behaviour.

Ethical positions

There are many ethical dilemmas that can arise from the quantitative research methods presented in this thesis. Bryman and Bell (2011) argue for five ethical guidelines that should be considered in research made in business and management:

- ***Information requirement***

The researchers should inform all people affected by the purpose of the research. They should also be informed about the elements included in the research.

- ***Consent requirement***

Regards the notion that all participants must know that their participation is voluntary and that they can cancel their involvement at any time.

- ***Confidentiality- and anonymity- requirements***

Information about all participants in a survey must be treated with utmost confidentiality. Personal data must be stored in a secure way.

- ***Usage requirements***

The collected data must only be used for the specific research purpose.

- ***False pretences:*** A researcher should not give participants false or deceptive information about the research.

Goode (1996) argues that the information that is necessary to be presented to the participants in an experiment should be decided case by case. He promotes the so-called “Situation ethics”, where he argues that research will never be able to acquire knowledge of social phenomena if researchers do not compromise on some ethical codes to a certain extent. Dalton (1959) argues that he would never have been able to study the differences between official and informal actions of company personnel without the tools of covert observations. Usually, researchers have no other choice than to hide parts of their investigation objects if they want to study new and interesting topics.

To be able to perform the present experiment, the real purpose of the study cannot be disclosed. Both Bryman and Bell (2011) and Hollander (1974) suggest that, since in many marketing surveys the participants need to have a naive attitude, it is not necessary to tell the whole truth. Direct lies are not encouraged within Hollander's (1974) ethical framework, but sometimes it is better not to disclose all facts. He also points out the importance of allowing participants to remain anonymous. Neither the Marketing Research Society (MRS) nor the American Marketing Association (AMA) currently have guidelines for experiments in marketing research, probably because experiments are not one of the most common methods used in marketing research (Söderlund, 2010). The MRS however, stresses the importance of allowing participants to remain anonymous and the AMA has some general guidelines for marketing research, including striving to always be honest.

With this in mind, we believe that the cause of this study justifies the decision not to disclose the whole truth for the participants in the present experiment.

4.6.1 Effectiveness of green advertising

Claim specificity (the degree to which the claim is substantiated; Davis, 1993) plays an important role in the success of green advertising as most consumers are sceptical of environmental claims in advertisements (Mohr et al., 1998). Apart from the specificity of the green advertisement, consumers' environmental concerns and familiarity with environmental issues were also found to be related to the effectiveness of the green advertisements (Obermiller, 1995). Although environmental concern mediates consumer responses towards green fashion advertisements (Kim, Forney, & Arnold, 1997), favourable attitudes towards green issues and advertisement appeals need not indicate green consumption behaviour (Schuhwerk & Lefkoff-Hagius, 1995; Zinkhan & Carlson, 1995). Certain experimental studies have shown that different message-related variables influence green advertisements. Positive appeals like health-oriented messages (Stafford, Stafford, & Choudhary, 1996) were more successful in comparison to other appeals. Low guilt appeals also more successful in mediating the influence on attitude towards the advertisement and the brand (Jimenez & Yang, 2008). Visuals that depict nature also increase consumer experience of emotional consumption benefits in green advertisements (Hartmann & Apaolaza-Ibanez, 2008). A few other studies have investigated message variables in conjunction with the environmental concern of the consumer. For instance, using a 'green' appeal persuaded less-involved consumers and improved their attitude towards the advertisement and purchase intention in comparison to high-involved consumers (Schuhwerk & Lefkoff-Hagius, 1995). Similarly for issues of lower salience, a sick-baby appeal (appeal which focuses on the problem) worked and

for higher salience a well-baby (affirmation that change is possible with the individual's action) appeal was useful (Obermiller, 1995). Consumers with low environmental concerns and high issue proximity (degree of closeness between the person and the issue) responded favourably to guilt appeals (Chang, 2012). Apart from environmental concern and involvement, other consumer-related variables also play a role in green advertising effectiveness. Consumers' attitudes towards country-of-origin of the product and perceived eco-friendly image of the originating country moderate the relationship between claim type and advertising effectiveness (Chan, Leung, & Wong, 2006; Manrai, Manrai, Lascu, & Ryans, 1997). Thus the success of green advertising is dependent on message characteristics, consumers' environmental involvement, attitude towards the issue and country-of-origin of the product.

Implementation of the study

Choice of product and brand

The choice of product category is based on the theories of the FCB-grid (Ratchford, 1987), which is a method to analyze the relationship between consumers and products (See table 4.1). The grid is based on two concepts for sorting brands: The consumer's involvement and motive. A consumer's involvement is divided into "high" and "low" to describe how much participation the consumer generally put into interacting with- and consuming the product. The motive part of the grid describes whether it is primarily a rational or emotional decision that affects the purchase of a product.

This study aims to choose a product category that is in the lower bracket of the consumer's involvement, in other words, a product that is chosen by consumers without much contemplating involved. This enables the participants to make a fair judgment in a quick experiment. The second requirement is that the product is chosen with rational motives, which means that what the brand conveys is an important reason to why the consumer chooses it. Succeeding with greenwashing in the rational part of the grid means that the company has deceived the consumer into thinking that the product is more environmentally friendly than it is.

Table 4.1 FCB grid

FCB GRID	Thinking	Feeling
High Involvement	Quadrant 1: <i>Informative</i>	Quadrant 2: <i>affective</i>
Low Involvement	Quadrant 3: <i>Habitual</i>	Quadrant 4: <i>Satisfaction</i>

Based on Ratchford, 1987

Detergent is chosen because it fulfils the requirements of a “low involvement” and “thinking” product in the FCB-grid. Detergent is also one of the consumer goods where green advertisement is particularly common, and a category widely affected by greenwashing. (Eltell & Åberg, 2012). Further on, detergent is chosen because it is a product that most college students buy, use and are familiar with.

The brand chosen for the experiment in this thesis is a detergent brand named RIN, one of India’s leading detergent brands. RIN detergent is made by Hindustan Unilever Ltd and is only sold in India. As of today, it has no market shares outside of India and has made no commercials outside of the Indian market (Hindustan Unilever, 2014). The choice of brand is confined to an unknown brand to the Chandigarh market, so that the label itself does not affect the participants’ attitude towards the ad and the product.

Design of the survey

Two printed ads for the detergent brand RIN were created for the study. According to Barbour and Gardner (1982), one can only manipulate the subjects tested in the experiment when studying the effects of a misleading or deceptive ad. The ads are made with consideration of the Chandigarh marketing laws and the guidelines from International Chamber of Commerce (ICC), ISO 14021 (Konsumentverket 2014; Indian Commission 2000).

The ads are presented in colour and the greenwashed ad shows RIN detergent and the brand logo surrounded by a green forest beside a lake. A pre-study with 13 students from the University of Gothenburg was conducted to choose the background for the greenwashed ad. The participants

were given three ads with different themes and asked which theme they found most environmentally friendly (see appendix 6). The highest ranked theme was then used in the final experiment. The greenwashed ad (see appendix 1) contains three greenwashed slogans that are highly visible. The first slogan, “Good for you, good for the planet”, is in large moss coloured text with a handwritten font on the right side of the ad next to the detergent box. The second slogan, “Pure and natural”, is integrated in the RIN logo on the top right corner. The last slogan, “100% natural”, is visible as a green seal in the top right corner of the ad.

To select the slogans, a list of 13 environmental claims used in actual commercial was compiled. A pre-study with 15 students from the University of Gothenburg was conducted to choose the most appealing ones. The participants were asked which of the slogans they found most appealing to them if they were buying a detergent. The three highest rated slogans were chosen for the greenwashed ad.

The text “RIN detergent is made with nature in mind. The green washing powder keeps both your clothes and your conscience clean” was added to make the ad more distinguished and highlight the green aspect.

The neutral ad (see appendix 2), uses the same detergent box and logo as the greenwashed ad, but is shown in a completely white background. The logo’s slogan is switched to the company’s real slogan “Clothes talk to us” (Hindustan Unilever, 2014) instead of the greenwashed theme “pure and natural”. The text “RIN detergent removes even tough dried in stains. Ensuring that you are left with stain free laundry 1st time every time!” (Vanish, 2014) was added to present the product in the same format as the greenwashed ad. The text focused on the properties of the detergent and was inspired by the detergent company Vanish.

Procedure

The experiment was conducted at the LBSIM, Delhi. The participants were told that they were participating in a voluntary study concerning attitudes for one of Asia's major detergent brands that could potentially enter the Chandigarh detergent market in the near future.

In three of the classes, the survey was presented together with the greenwashed advertisement. In the other three classes, the neutral advertisement was presented with survey. This separation was made to prevent the students' answer from being affected by comparing both advertisements.

After the subjects were given the survey, they were asked to respond to the questions in the accompanying questionnaire. It was emphasized that the answers are anonymous, that there were no right or wrong answer and that they should answer honestly. The participants showed a high level of involvement and since they all answered individually, it can be presumed that the experiment was conducted under a controlled condition.

Sample selection

Because of the limited time frame, this thesis uses a convenience sample. The studied population is delimited to university students at the University Business School. Previous research have shown that even environmentally involved and high educated people will perceive greenwashed advertising in a positive light (Newell et al, 1998; Stokes, 2007). Students of higher education are therefore an interesting group for measuring the effects of greenwashing. The survey is also issued in English to avoid translation ambiguities with the thesis which makes students, as knowledge of English is usually a criterion for higher studies, a preferable test group.

Sampling method and sample size

Participants were chosen on the basis of *single-stage cluster sampling* (Bryman & Bell, 2011). This is a method used when the desired population naturally forms groups. Since students

naturally are clustered into classes this method is optimal for the experiment conducted in this thesis. The classes were chosen randomly solely based on size and location.

Six classes are examined in this study, with a total of 160 participants. The non-response was zero, which indicates a high level of involvement and that the participants perceived the survey as serious.

Source criticism

Thurén (2005) argues that there are four principles that must be considered when controlling sources:

- **Authenticity** - the source must be what it purports to be.
- **Temporal association** - There is an increasing reason to doubt an older source.
- **Independence** - The source must stand on its own. It should not be a summary or a transcript of another source.
- **Freedom of tendency** - There should be no reason to suspect that the source gives a false image of the reality.

This thesis uses sources in accordance with Thurén's (2005) principals as far as it is possible. In some cases older sources are being used when either the author is still relevant or there is a lack of more updated research.

The methods used in this thesis is primarily based on three renowned authors in the subject; partly on the book *Business Research Methods* by Bryman and Bell (2011) and on the book

Experiment med människor by Söderlund (2010). Further on, this thesis is primarily based on articles from scientifically credible journals, such as *Journal of Marketing*, *Journal of Advertising*, *Journal of International Consumer Marketing* and *Journal of Consumer Research*.

We have a neutral position towards the research. The quantitative approach of the study gives us less ability to influence the participants compared to a qualitative approach. We have no personal, economic or political interest that can affect the selection of the sources in this thesis. To ensure that the research is as free from tendency as possible, we have operationalized and designed the questionnaires in the best possible way to ensure that neither the survey nor our implementation influenced the participants.

5. Results

Descriptive statistics

The study includes 160 participants divided into two groups.

Reliability

Cronbach's alpha value for 2 questions about purchase intention of neutral ad is 0.519 (see table 1) which shows there is poor internal consistency and 0.387 for greenwashed ad (see table 2). For the three questions about perceived deception for neutral ad, the Cronbach alpha was 0.802(see table 3), which is a clear indication of internal consistency. While the value of Cronbach's alpha about perceived deception of greenwashed ad is 0.378(see table 4) which shows poor internal consistency.

Table 1. Cronbach's alpha: Purchase Intention (neutral ad)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.519	.523	2

Table 2. Cronbach's alpha: Purchase Intention (greenwashed ad)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
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.387	.388	2
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Table 3. Cronbach's alpha: Perceived Deception (neutral ad)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.802	.808	3

Table 4. Cronbach's alpha: Perceived Deception (greenwashed ad)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.378	.385	3

Hypothesis testing

- **Hypothesis 1**

H0: Consumers will not be able to identify a greenwashed ad's claims and design as deceptive.

H1: Consumers will be able to identify a greenwashed ad's claims and design as deceptive.

The average level of perceived deception in the neutral ad is 3.70 on a seven-point Likert-scale and for the greenwashed ad the mean is 3.99. The t-test shows no significant difference between the mean scores for the level of perceived deception between the two ads. This result supports H0

and reveals that the participants in the group with the greenwashed ad were not able to identify the greenwashing.

- **Hypothesis 2**

H0: Consumers will not have a more favourable attitude towards the greenwashed ad than the neutral ad.

H1: Consumers will have a more favourable attitude towards the greenwashed ad than the neutral ad.

The Spearman's Correlation coefficient for attitude towards neutral ad and purchase intention is $r_s = 0.506$ and it is statistically significant ($p = 0.000$)

The Spearman's Correlation coefficient for attitude towards greenwashed ad and purchase intention is $r_s = 0.121$ and it is statistically insignificant ($p = 0.284$)

- **Hypothesis 3**

H0: Consumers will not have a higher purchase intention for the product in the greenwashed ad than the neutral ad.

H1: Consumers will have a higher purchase intention for the product in the greenwashed ad than the neutral ad.

The mean level of purchase intention in the neutral ad is 4.16 on a seven-point Likert-scale and for the greenwashed ad the mean is 3.71. The t-test shows no significant difference between the mean scores for the level of purchase intentions between the two ads. This result supports H0 and reveals that the participants that were exposed to the greenwashed ad are not more inclined to buy the product.

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Purchase_intention	Equal variances assumed	.176	.675	1.372	158	.172	.30000	.21872	-.13200	.73200
	Equal variances not assumed			1.372	157.642	.172	.30000	.21872	-.13200	.73200
Attitude	Equal variances assumed	5.116	.025	-1.242	158	.216	-.15313	.12327	-.39659	.09034
	Equal variances not assumed			-1.242	144.716	.216	-.15313	.12327	-.39676	.09051
Deception	Equal variances assumed	.725	.396	-1.542	158	.125	-.29583	.19188	-.67481	.08315
	Equal variances not assumed			-1.542	155.143	.125	-.29583	.19188	-.67487	.08320

Group Statistics

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Purchase intention	Neutral	80	4.1688	1.34997	.15093
	Greenwashed	80	3.8688	1.41588	.15830
Attitude	Neutral	80	3.5625	.88990	.09949
	Greenwashed	80	3.7156	.65088	.07277
Deception	Neutral	80	3.7000	1.29328	.14459
	Greenwashed	80	3.9958	1.12820	.12614

Correlations (neutral ad)

		att	Pi
Spearman's rho	Correlation Coefficient	1.000	.506**
	Att Sig. (2-tailed)	.	.000
	N	80	80
	Correlation Coefficient	.506**	1.000
	Pi Sig. (2-tailed)	.000	.
	N	80	80

** . Correlation is significant at the 0.01 level (2-tailed).

Correlations (greenwashed ad)

		att	Pi
Att	Correlation Coefficient	1.000	.121
	Sig. (2-tailed)	.	.284
	N	80	80
Spearman's rho	Correlation Coefficient	.121	1.000
	Sig. (2-tailed)	.284	.
	N	80	80

6. Discussion

Discussion

The present study reveals interesting indications regarding greenwashed claims in advertising. Firstly, the results reveal that consumers cannot identify greenwashed ad claims or design as deceptive, something which is supported by Newell et.al (1998). According to the present study, consumers consider a brand as more environmental friendly if exposed in a greenwashed ad, than in an environmentally neutral ad. The results raise the question of whether current legislation is sufficient. Even though the legislation aims to prevent environmental deceptive claims, it is clear that marketers still can deceive customers with greenwashed claims without breaking present legislation. Without a stricter legal definition of what green marketing may contain, there is little incentive for companies or advertisers to stop using greenwashing.

The findings indicate that there is no significant difference in attitudes towards the ads. Our hypothesis that consumers' attitude towards the greenwashed ad is more favourable is not supported. Therefore, it cannot be concluded that a more positive attitude towards an ad can be gained by the use of greenwashing. However, the present study does not show any signs of consumers having a more negative attitude towards a greenwashed ad.

Based on these results, it can be concluded that there is a significant difference in purchase intention between the two examined groups. Even though the mean score levels for both groups were in the lower bracket of the grid, these results indicate that greenwashing increases purchase

intentions. A low mean score could be the result of choosing a detergent brand, since detergent is not a *high involvement product* and it would most probably have a low purchase intention in any setting.

Contrary to Paço and Reis' (2012) claim, that green advertising will be received with skepticism by consumers, this study shows that green advertising claims in fact increase their purchase intentions. However, the development of truly green products may be hampered in the current consumer market, since greenwashed claims are also perceived as environmentally friendly, as suggested by Paço and Reis (2012). Do consumers care more about being perceived as environmentally friendly, than in fact being so? Newell et. al (1998) suggested that consumers' desire to look green may be greater than the willingness to critically review advertising claims, which is not disproved by the result in this study.

Finally, the result of this study suggests that companies can use greenwashed claims to gain a greener image for a product and increase consumers' purchase intention. To stop companies from being able to free ride on the green train, an update in current legislation to clarify when green claims may be used, could be a partial solution. An alternative or complementary solution to a stricter legislation could be to promote a better understanding of greenwashing and its consequences to the public. Consumers that are able to identify greenwashing in advertisement and feel deceived by companies are less likely to buy the companies' products (Newell et. al, 1998). A general understanding of greenwashing could lead to consumers being able to better distinguish between greenwashed and truly green products. This could in turn result in a stronger incentive for companies to develop and implement internal ethical guidelines to deter the risk of decreased sales.

Managerial implications

The results of this research show that there are marketing implications of greenwashing that can benefit companies. For products that are in the low involvement consumer goods category (Ratchford, 1987), the use of greenwashing in advertising can in fact increase sales. On the other hand, the research, does not support any indication of an improvement in perceived attitude towards an ad that uses greenwashing.

It should be noted that an advertisement that is perceived as deceptive by consumers can lose credibility both towards the advertised product and the company itself (Newell et. al, 1998). As consumers in this experiment have not perceived the greenwashed ad as deceptive, a fairly deceiving ad still has the power to mislead customers.

A warning should be stated about the legal framework for environmental advertisement. There are many instances where companies have been indicted and fined for deceptive environmental advertising (Eltell & Åberg, 2012). However, the results of this thesis show that while following the Indian environmental marketing legislation, it is still possible to use greenwashing in advertising to increase consumers' purchase intentions.

7. Further research and conclusion

Further research

The current research shows that there is more research to be done regarding the impact of greenwashing. In further research it is recommended that a more diverse sample is used to increase the possibility to generalize the findings to the whole Indian population. It would also be interesting to examine a *high involvement product* under similar conditions to investigate whether the results differ between product categories. Further, it would be of interest to investigate if consumers' response to greenwashing is affected by their environmental involvement. Finally, it would be of value if future research also included underlying reasons and deeper behavioural aspects connected to greenwashing.

Conclusion

Indian consumers are becoming more environmentally conscious and the demand for green products and services has increased significantly in recent years. Striving to meet consumer demand for green products, there are several instances where companies use greenwashed claims. The current experiment shows how greenwashed ads affect consumers' perceived deception, attitude towards an ad and purchase intention.

Since consumers' willingness and ability to critically review companies' environmental claims are limited, there is without a well-formulated environmental marketing legislation weak incentive for companies to stop greenwashing. A greenwashed ad increases consumers' purchase intention and the use of greenwashing does not negatively affect the attitudes of consumers. To stop companies from abusing this phenomenon, an updated legislation as well as a better understanding in the public regarding greenwashing are recommended. This could correspondingly result in a stronger incentive for companies to implement internal ethical guidelines regarding greenwashing to deter the risk of decreased sales.

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Appendix

Appendix 1. Greenwashed ad



Appendix 2 Neutral ad



RIN detergent removes tough dried in stains. Ensuring that you are left with stain free laundry 1st time every time.

