

THE IMPACT OF CLIMATE CHANGE ON BUSINESS

THE RISE OF THE GREEN CONSUMER?

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INTRODUCTION

"Climate Change is the greatest market failure the world has seen". Sir Nicolas Stern, former Chief Economist of the World Bank.

This statement reinforces the view that climate change is a product of the world's economic and social "system" as a whole, albeit developed economies have contributed significantly more per their population to date than developing nations. It is an issue that encompasses all leading actors of the market: operational forces such as large companies, regulatory forces such as government, intellectual forces such as think-tanks, research centers, universities, trade associations, foundations, and so on. As it has been caused by the system, it will need to be solved by the system. Nevertheless, the issue is rapidly taking on political form, as debate naturally forms over who is responsible for it and therefore who should be obliged to provide solutions – who is to blame and who is to pay and be obliged to redress those most directly impacted? This question is at the centre of the current debate about shifting blame to individuals instead of companies, to companies instead of government, to government instead of individuals. No matter how circular the debate becomes, it firmly reinforces that climate change is a universal issue, not just a matter of individual consumer responsibility but one of market forces, including business, government and other organized interests. The challenge for business will be to recognize opportunities amidst the debate, to

show leadership while being blamed, and to marshal the strengths of business to address climate change even in times of uncertainty.

CLIMATE CHANGE IN MARKETING AND OPINION RESEARCH

Since the early 19th century, when Jean-Baptiste Fourier discovered greenhouse gases and their impact on the planetary energy balance, climate change issues have moved from a purely scientific to a broad public discourse. Though it is not the goal of this paper to substantiate the severity of this phenomenon, it is now widely expected that visible effects will be made apparent much sooner than was first estimated by Swedish chemist Svante Arrhenius. Consequently, the time to act is now in order to lessen the impact for this generation and for those to come.

Scientific literature attributes the beginning of regular assessments of public attitudes on environmental issues, including global warming, to the 1970s. Since then, studies have traditionally focused on levels of awareness, actual knowledge, degrees of concern, perceived risks and willingness to pay or make lifestyle changes to mitigate and adapt to potential negative impacts (Bord, Fisher, and O'Connor, 1998, p75). Among numerous public opinion polls tracking public concerns, the studies of climate change risk perceptions (e.g., Bostrom et al, 1994; Kempton, 1997; Bord et al, 1998; Poortinga et al, 2006; Leiserowitz, 2006) represent by far the minority. Limited knowledge about international

public opinion and behavior regarding climate change risks, results from the lack of attention to the issue by many multi-national surveys (Leiserowitz, p3). Even the most recent international studies routinely deal with general perceptions rather than risk perceptions. Risk perception topics in their turn have included national threat (CCGA/WPO, 2007) and health threat (Globescan), etc. Risk management and climate change mitigation strategies and behavior became a focus of GS' Survey of Sustainability Experts (1999-2008), Climate Change Panel (launched 2007), and Greendex (2007, 12 countries). The latter was conducted on behalf of the National Geographic Society.

At the end of the 1990s, public discourse on global warming expanded to include a business dimension. Research statistics show that the corporate world has been keen to capture emerging market trends, and consumer behavior relative to climate change. A few examples of business interest: a successful chain of GS semi-annual international syndicated polls (20+ countries each) as well as custom projects on corporate reputation where attention to the environment is included as an attribute of corporate responsibility. Responsibility for the environment has also contributed to many corporate reputation indices (e.g. Reputation Institute). A short though interesting study commissioned by HSBC (HSBC Climate Confidence Index 2007) is a further example of growing business interest in the topic.

The evidence for this paper is primarily derived from GlobeScan's 2007 Climate Change Monitor, the largest international opinion poll to have specifically focused on the issues of global warming, and perhaps the first to attempt to investigate the linkage between potential risks for consumers, governments, and businesses.

KEY ISSUES FOR BUSINESS

Economic Development and Business Growth vs. Climate Change Mitigation

Emerging markets are often considered the new frontier for business as their economic growth and rising levels of consumption outpace the performance of mature economies. But as they grow and attract investment

from business, they risk the consequences of material success by raising their environmental footprint. How consumers react to this two-fold game of quickly rising prosperity coupled with ecological deterioration and the desire for newness and innovation without serious impact on environmental conditions, how they confront climate change and the increasing responsibility of old and newly industrialized societies for adverse environmental impact, and how business and society are perceived as part of the problem or part of the solution, will significantly shape the market and opinion research industry in the coming years. The research industry will play an integral role in guiding business through this strategic minefield.

Mobilization or Despair?

The threat of climate change could potentially lead society to a state of either mobilization or paralysis – at least in the terms so far presented by media and other information sources. People will either rise to the occasion and meet the challenge, or wallow in a disempowered state unable to take on the societal changes in values required. Communicating the likelihood of each path and raising awareness of the opportunities this challenging environment represents for business are critical contributions market researchers can make. Researchers can go beyond just conciliating the agenda of consumers and corporations, to crystallizing the options and making feasible recommendations for achieving sustainable market growth and progress in society.

Cognitive Dissonance – Citizens vs. Consumers

It has been broadly observed, and our research confirms, that the attitudes of people as citizens are not always consistent with their behaviors as consumers. In this time of change and under the threat of climate change, long established behaviors from a consumerist society are placed at odds with the rational reasoning of the consequences of climate change. According to the theory of cognitive dissonance (Festinger), individuals tend to seek consistency between their beliefs and their behaviors, and attitudes are more likely to change to accommodate behaviors. If this is true and unless

intervening factors come into play, the green attitudes we currently detect will fade over time and finally match less sustainable behaviors.

DRIVERS OF CHANGE

This section of our paper will investigate a series of interaction points between business and citizens to test the influence of each on the likelihood of green behavior going mainstream. The analysis will take a global perspective, addressing differences among countries in economic development, culture and history. The key points of interaction are: consumer activism, guilt (about causing climate change), willingness to change lifestyle, and sense of empowerment/efficacy.

Guilt

It is generally accepted by science and by individuals that humankind is the principle driver of climate change. However, the linkage of day to day activities of individuals across the globe to the cause of climate change is far from clear in people's minds. This is a major communications challenge to business and equally to other institutional actors – governments, NGOs and civil society – to affect consumer behavior in a meaningful way.

In fact, consumers demonstrate ambivalence towards the role of individuals when confronting climate change. Our hypothesis that sense of guilt for one's personal contribution to climate change would be a catalyst for energy saving behaviors does not seem to have passed the test. Personal guilt does not appear to have the same effect from one country to the next. Significant proportions of national populations do not admit any personal guilt regarding global warming; between 20% and 60% of respondents across the countries included in the Climate Change survey do not feel guilty about their personal impact on the environment; the rest are either unaware of the consequences of their deeds or put blame on other causes and/or institutionalized social agents, such as governments and businesses. Moreover, the feeling of personal guilt does not appear to be connected to environmental behavior nor does it factor into a sense of personal empowerment. (See figure 1.)

Unfortunately, we observe that consumers in countries with the largest ecological footprint are the least likely to feel guilty. It is fair to say that personal guilt is more an attribute of the developing countries than the developed. Respondents in developed countries seem to have reconciled their consumption behavior with partial offsets such as recycling and energy saving. Another reason for low levels of personal guilt in developed countries may be the more common tendency to institutionalize social responsibilities and to consequently place the blame not on themselves but on governments and other actors. However, consumers may genuinely feel that they are doing or have done their personal best in being green. This raises a problem of the natural limits for green ideology; some of GlobeScan's studies reveal non-proportional gains in green consumer segments across geographic regions in the United States; traditionally 'brown' states in the United States have become significantly greener in the last few years while 'green' states seem to have flattened. The measure of guilt is a relative concept: the Germans don't feel guilty because they know that the Chinese and Indians do not conserve and recycle as much as the Germans do. (See figure 2.)

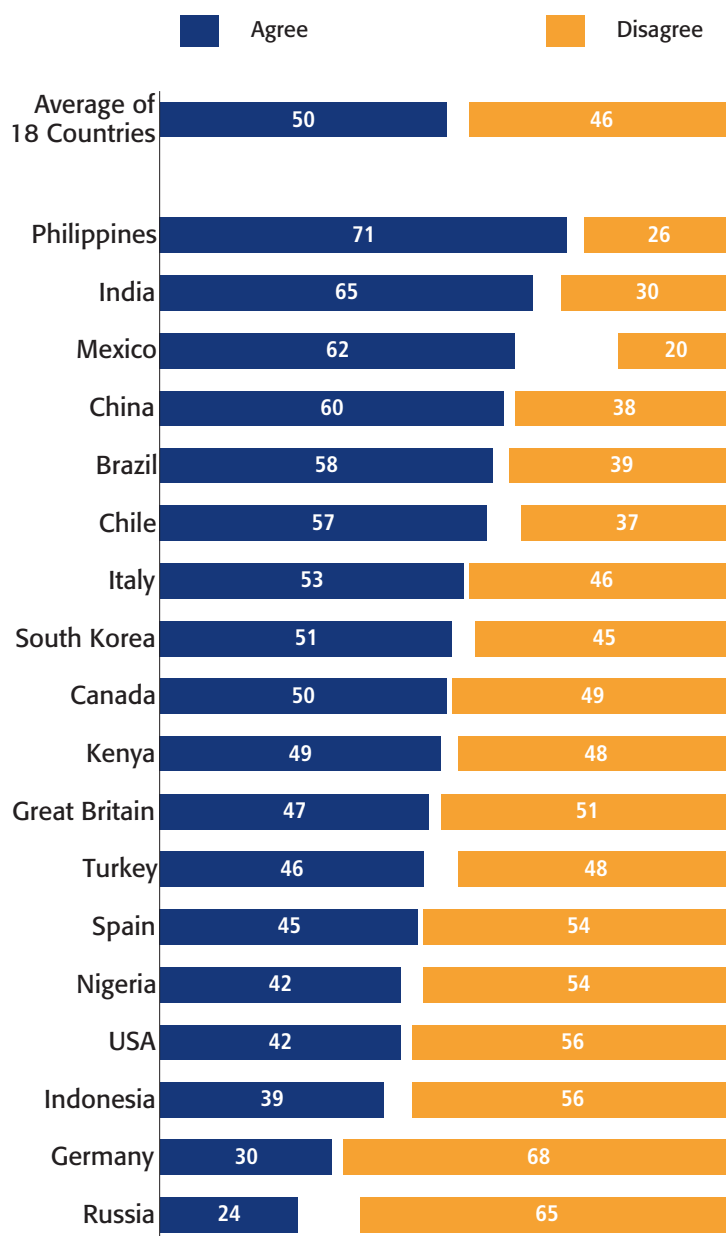
Societal actions aimed at mitigating climate change, e.g. restorative efforts or support of environmental groups have not yet become a part of everyday life, especially in the developing countries.

Willingness to Change Lifestyle

Large pluralities in most countries agree they are willing to adopt lifestyles changes in order to cope with climate change, though the degree to which people are ready consistently lags the intensity to which feelings of guilt were expressed. Indeed, the inclination to change lifestyle starts at a lower level than guilt (7% in Russia and South Korea) and peaks well below what feelings did (maximum 55% in Canada). Nevertheless, we see a correspondence of attitudes with some individual-level responsibility accepted and in turn some disposition to redress the status quo through personal willingness. (See figure 3.)

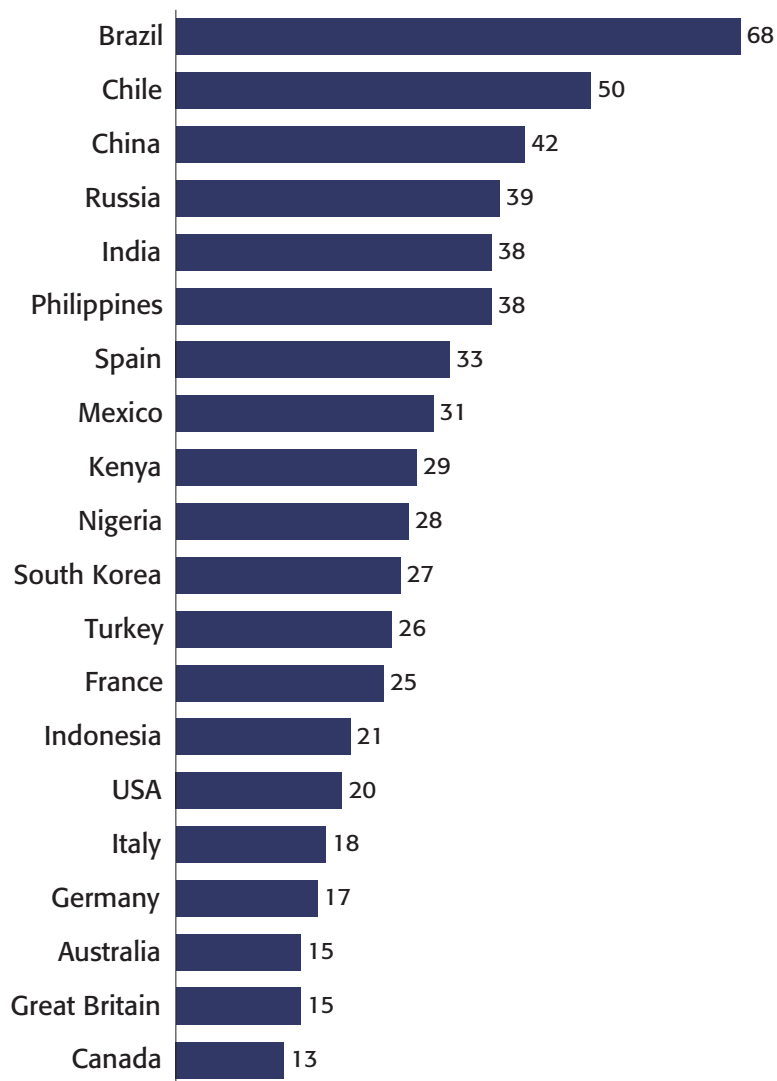
PART 7 / FRONTIERS IN SOCIETY: SOCIAL RESPONSIBILITY

FIGURE 1
 PERSONAL GUILT, 18 COUNTRIES
 I FEEL GUILTY ABOUT MY IMPACT ON CLIMATE CHANGE.
 "AGREE" VS. "DISAGREE" BY COUNTRY, 2007



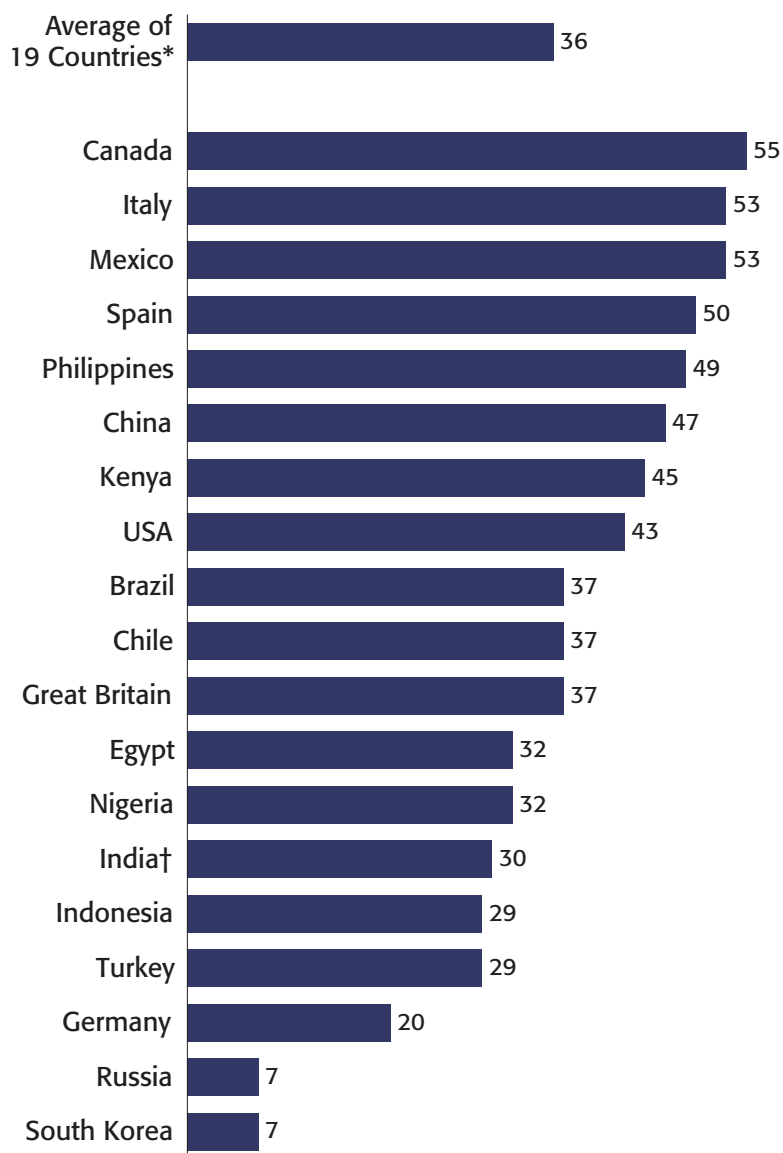
The white space in this chart represents "DK/NA".

FIGURE 2
CONSUMER ACTIVISM
ACTIONS TAKEN IN THE PAST YEAR TO REDUCE IMPACT ON CLIENT CHANGE
UNPROMPTED "NOTHING"* BY COUNTRY, 2007



* Includes mentions of "nothing". "Nothing because it is too late to make a difference" and "Nothing because it's not important".

FIGURE 3
WILLINGNESS TO CHANGE LIFESTYLES:
READY TO MAKE SIGNIFICANT CHANGES TO LIFESTYLE TO HELP PREVENT CLIMATE CHANGE
"STRONGLY AGREE" BY COUNTRY, 2007



* Asked in Egypt

† National sample

Sense of Efficacy/Empowerment

When it comes to behavioral measures the gap widens. Not only do individuals feel incapable of having a major impact on climate change, but in everyday life, vast majorities simply abstain from doing anything to reduce their ecological footprint. Across all countries surveyed, nearly six in every 10 consumers just can't find a connection between their will to act and its ultimate impact. And even though we find a higher self-reliance and confidence in impact on climate change among those in developed countries, (i.e., five out of the seven developed countries in the sample lead the pack in terms of confidence in their impact over climate change), this can't be easily related to willingness to change lifestyle or any record of actions already taken to minimize individuals' impact. (See figure 4.)

Results show a mixed picture at the individual country level which refutes any linear relation between level of economic development and attitude towards climate change. Some countries, such as Canada, do display consistent findings where the majority feels a sense of guilt and willingness to change lifestyle, in hand with a fairly high level of confidence in consumer empowerment to change things and a solid majority that has actually been pro-active. So it is tempting to conclude that feelings of guilt have motivated the individual to accept lifestyle changes, thus legitimizing a role for the individual along with a sense of confidence that something can be done about climate change.

But Canada's example is more the exception than the rule. If one looks to another highly developed country – Germany – where the behavioral record is nearly as high as Canada but feelings of guilt and readiness to accept changes are at a minimum, it becomes clear that a linear relationship cannot be generalized across countries. This is also the case with consumers from emerging markets such as Brazil, India and China. Consumers from these three countries reflect a degree of anguish about their impact on climate change that is well above the sample mean yet their sense of personal efficacy in how influential they perceive themselves for action is highly different. Moreover, when it comes to clear-cut signs

of consumer activism the proportion of Chinese and Indians engaged in concrete activities to mitigate their environmental impact is closer to their peers of highly developed societies like Spain and the United States than to Brazilians. In sum, there is no universal path to link attitudes and behaviors towards climate change.

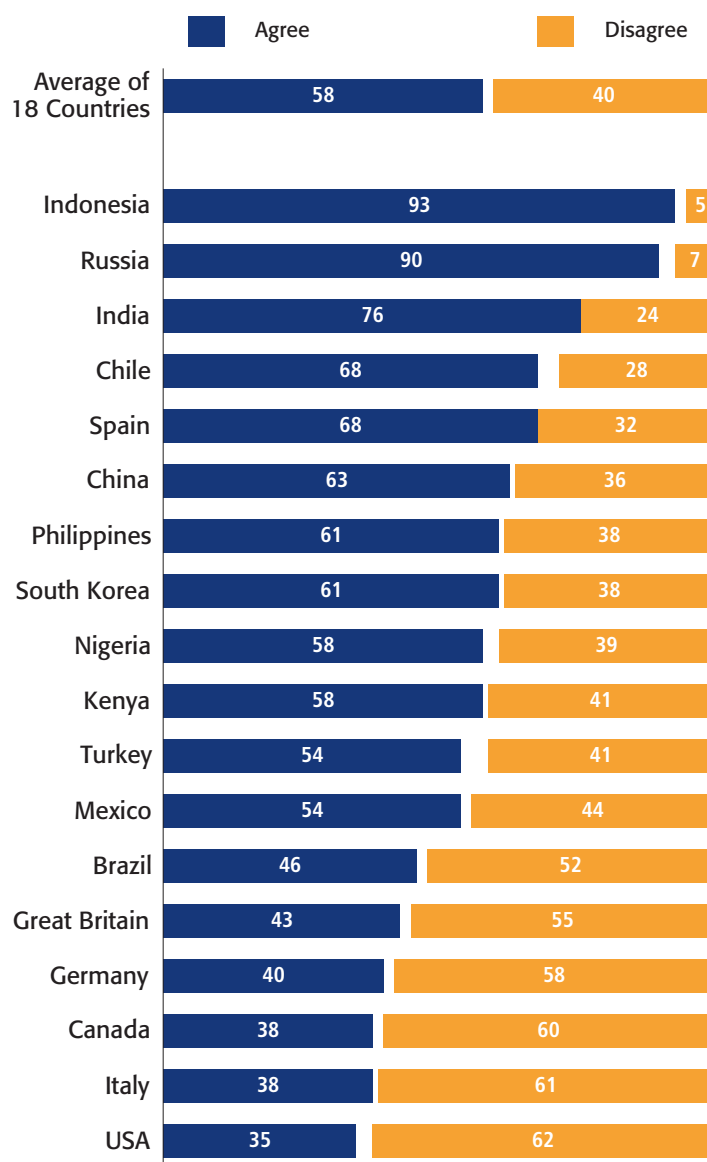
IMPLICATIONS FOR BUSINESS AND MARKET RESEARCH

How do these patterns of attitude inconsistency fit into the overall discussion of the impact of climate change on business? To begin with, cognitive psychology has already taught us that such inconsistency (better known as cognitive dissonance) is a recipe for psychological discomfort and individual distress (Festinger 1957). Consumers will naturally try to pass the blame for climate change onto business and government, and will expect both to take initiative and show leadership. In this state, they are willing to accept and follow the lead of a change agent as a means of rectifying their dissonant state. The challenge to business is thus twofold; be watchful of the effects of blame, but then seize market opportunities that consumers will willingly follow.

For global companies, the challenge is more complex. Not all countries in fact display dissonance, and as a result will respond differently to product/service propositions. Figure 5 demonstrates this situation. We plot attitudinal data on the horizontal axis and behavior on the vertical axis to measure consumers from different countries as either consonant or dissonant. The chart reveals that both mature and emerging markets can be found in both consonant and dissonant orientations. This implies that there is not a single approach for developing economies or for developed countries.

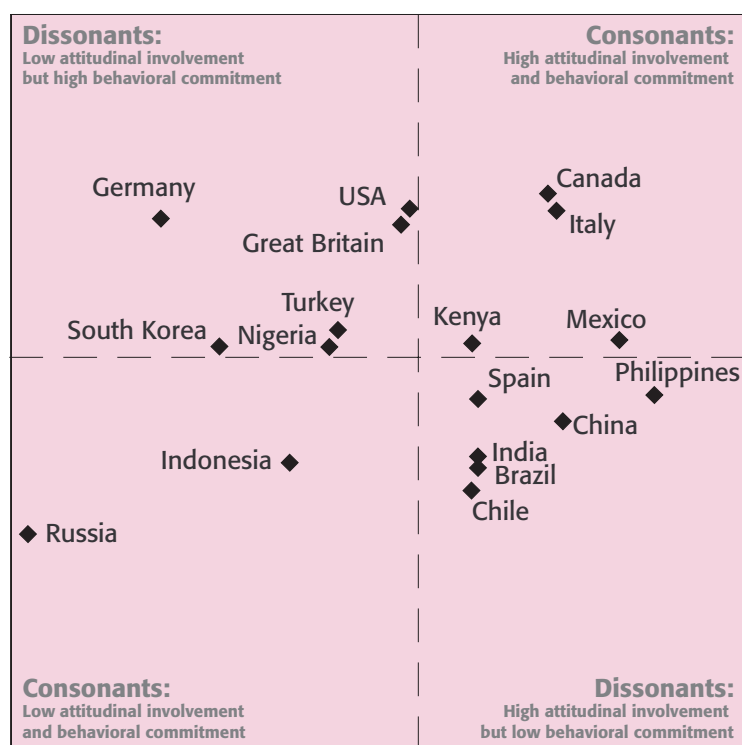
Moreover, when consonance prevails it does not necessarily mean that there is consistent acceptance of individual responsibility and need for action. Such is the case for Russians and Indonesians who are disengaged both attitudinally and behaviorally, implying that climate change is another actor's fault and therefore the responsibility of business or government to provide corrective measures. As the role for business will vary

FIGURE 4
 SENSE OF EFFICACY ABOUT CLIMATE CHANGE
 INDIVIDUALS CAN DO VERY LITTLE ABOUT CLIMATE CHANGE
 "AGREE" VS. "DISAGREE" BY COUNTRY, 2007



The white space in this chart represents "DK/NA".

FIGURE 5
PERSONAL RESPONSIBILITY FOR CLIMATE CHANGE PREVENTION: ATTITUDES AND BEHAVIORS



by country, market research will play a critical role in guiding business strategy relative to the challenges of climate change.

BUSINESS AS CHANGE AGENTS

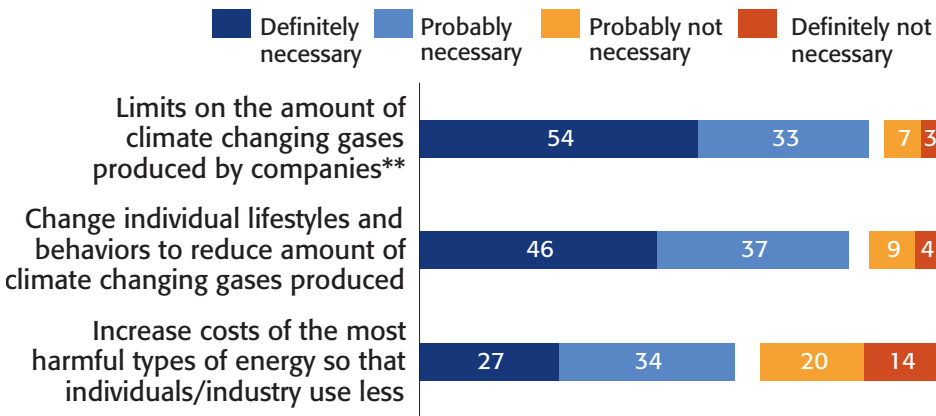
An average of eight in ten people say that human activity, including industry and transportation, is a significant cause of climate change. As a human-generated problem it requires a human-generated solution, which may take various forms: individual actions that include changes in individual lifestyles and consistent offers of products/services enabling the adoption of new lifestyles. The data shows that consumers are by and large in a waiting mode and they expect key efforts to be executed by institutionalized change agents, such as governments and companies. They are the least open to changes in lifestyles they themselves will have to initiate, especially if dictated by arbitrary changes in prices. (See figure 6.)

One key explanation for why consumers see business as change agents for climate change is industry's reputation as a leader in the advancement of technology, and technology is seen by majorities in most countries as the primary solution to climate change.

From figure 7 we observe that in eight of the twelve countries that were identified with dissonant profiles of attitudes to behaviors, over 50% of people agree that technology will solve climate change with little change in human behavior. As such, technology may become instrumental to redress business blame and to demonstrate the leadership consumers are looking for.

To more clearly demonstrate the relationship between belief in technology and the need for leadership on climate change, we compared the correlation coefficients between confidence in technology and the dissonance

FIGURE 6
PERCEPTIONS OF CHANGE AGENTS
AVERAGE OF 21 COUNTRIES,* 2007



The white space in this chart represents “DK/NA”.

* Asked in Egypt. National sample in India.

** Not asked in Egypt. Urban sample in India.

between attitudes and behaviors for the entire sample of countries, and for the group of countries displaying patterns of dissonance. The Pearson’s coefficient for all countries yields a moderate level of -.41, showing that the greater the gap between attitudes and behavior, the stronger the confidence in technology. But the correlation is stronger when calculated for only those countries falling in the dissonance quadrants as well as the two countries (Russia and Indonesia) that are consistently denying blame and responsibility for individuals. For this particular subgroup, the correlation is -.62, which clearly reveals that as individuals feel incapable of reconciling their feelings and their dispositions to act, they will quickly turn to the business tool of technology as a catalyst for actual change.

Once the barriers to sustainable behavior become unlocked one by one, what is now known as “green” will become mainstream.

Consumer Activism

In order to assess the relationship between consumer expectations of companies and the activism they may engage in to influence corporate behavior, we

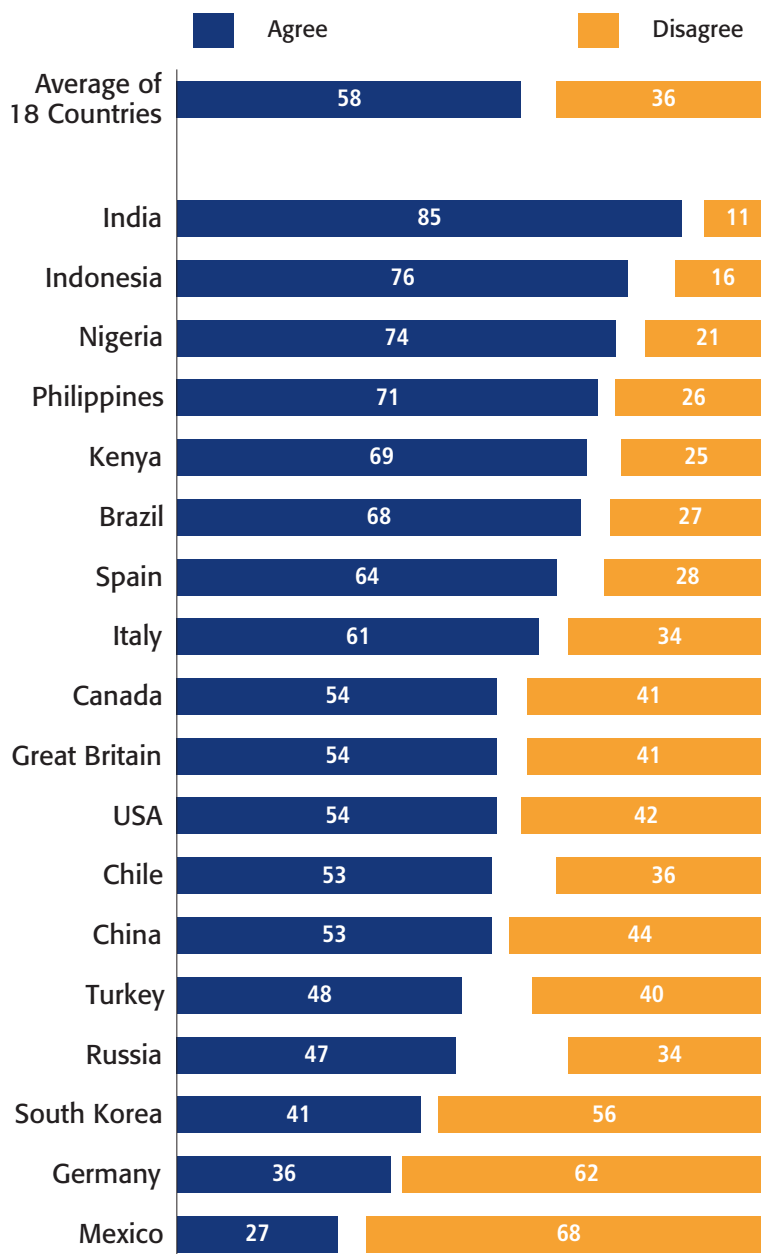
have constructed the following causal model using the technique of Structural Equation Modeling. The model is tested using GlobeScan’s Corporate Social Responsibility Monitor multi-country public opinion database. The model links consumer interest in the corporate world, their expectations of companies in the area of climate change prevention, environmentally driven consumer aspirations and actual ethical consumerism.

Construct Green Expectation includes areas of corporate social responsibility rated on the four point responsibility scale from ‘should not be held responsible’ to ‘should be held completely responsible’. The two areas are: ensuring its products and operations do not harm the environment, and reducing their impact on climate change.

Green Premiums refer to respondent’s agreement with the statement: I would pay 10 percent more for a product that was produced in a socially and environmentally responsible way.

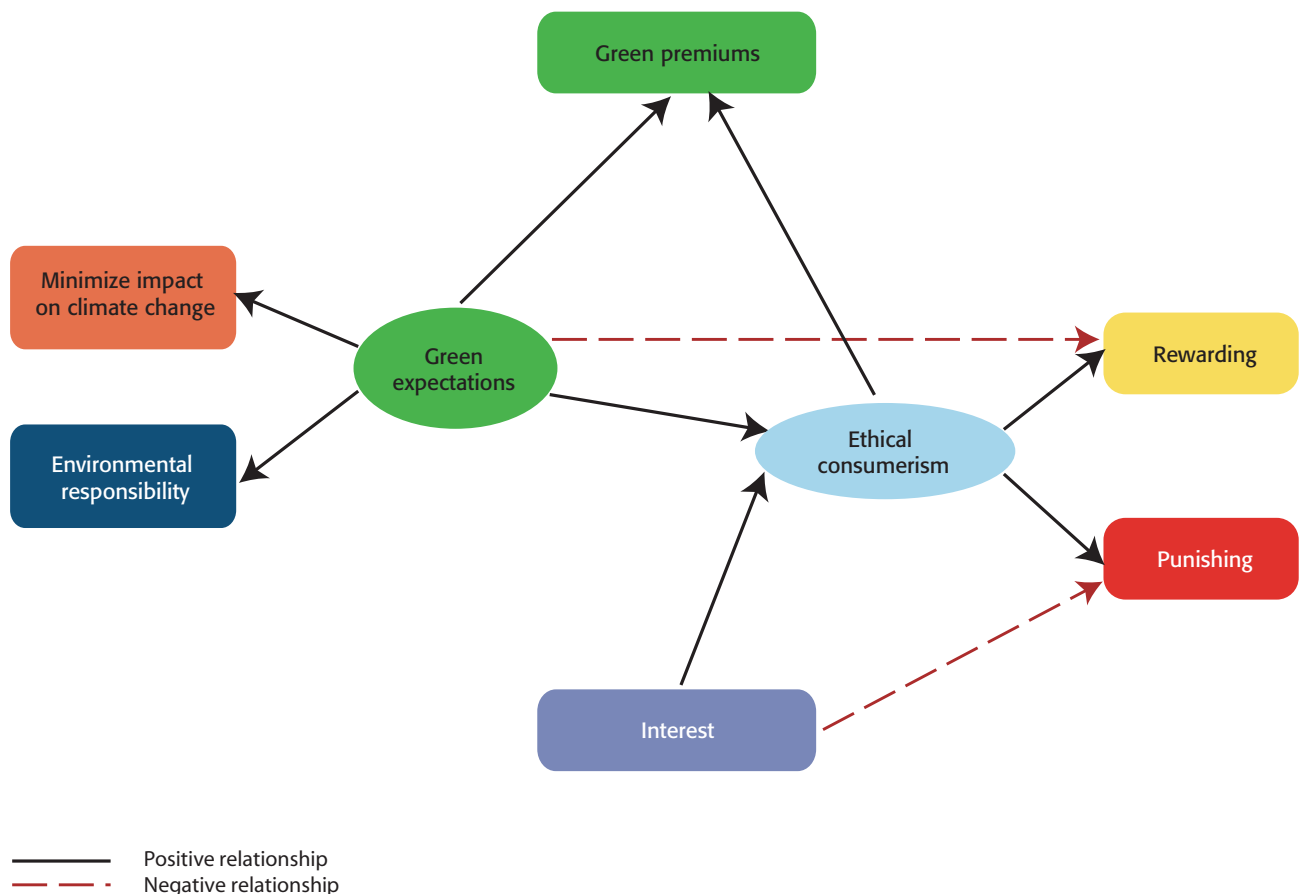
Concept Ethical Consumerism includes self reporting rewarding and punishing considerations and actions

FIGURE 7
 CONFIDENCE IN TECHNOLOGY-DRIVEN CLIMATE CHANGE MITIGATION:
 TECHNOLOGY WILL SAVE CLIMATE CHANGE WITH LITTLE CHANGE IN HUMAN BEHAVIOR
 “AGREE” VS. “DISAGREE” BY COUNTRY, 2007



The white space in this chart represents “DK/NA”.

FIGURE 8
CLIMATE CHANGE AND ETHICAL CONSUMERISM



towards companies in the last 12 months measured on the scale ranging 'not considered doing this' to 'have actually done this'.

Interest is represented by the level of respondent agreement with statement 'You seek out information about the behavior of companies. (See figure 8.)

What the model shows is that citizen expectations of companies to deliver on climate change mitigation are fairly high and stimulate consumer activism when it comes to rewarding brands that meet public expectations or punishing those that are perceived below perceived standard. With the growth of public concern about climate change, the mobilization of consumer activism is seen as an obvious outcome. **This is significant;** *people will not change their own behavior substantially*

to reach consonance with their attitudes, but they will demand change from a third party (business), to reach the same goal. We will demonstrate that for climate change prevention, consumers are reliant on institutionalized change agents (governments and companies) and are far more likely to raise their expectations for companies than to change their lifestyles. This observation aligns with other scientific observations implying that "global warming is not a salient issue, and that people across the world will support global climate change initiatives that do not levy unusual hardships, but they cannot be expected to voluntarily alter their lifestyles" (Bord, Fisher, and O'Connor, 1998, p75).

Very high public expectations of companies do not seem to be fully met. Companies and products are not punished if they underperform, but they lose competitive

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advantage by not gaining credit from the willingness of consumers to reward positive outcomes.

Consumer activism not only puts a burden of responsibility on companies but it also creates new opportunities for growth. The most active ethical consumers with higher societal standards of corporate responsibility will claim to be significantly more likely to pay a premium for goods with minimal impact on climate.

Effective dialogue leading to a social contract between companies and consumers is essential. Open and trustworthy communication on the challenges companies face in tackling climate change can be understood by the broad public and can soften and delay punitive reactions.

STRATEGIC IMPLICATIONS FOR THE MARKETING AND OPINION RESEARCH INDUSTRY

1. A need by business to understand the behaviors of consumers relative to climate change, not just attitudes, will quickly develop. Market research firms that build this competency first will benefit most from rapid growth in demand.
2. Consumers' blaming of business for causing climate change and their rising expectations may not be rational. To deeply understand their unmet needs there will be a need for sophisticated and subtle techniques that will reveal the "real" motivators to behavioral change.
3. Those products and services that are successful may indeed involve the lifestyle changes that consumers say they don't want, but if new products embrace innovation and breakthrough uses of technology, consumers will willingly be led to change their ways. Consequently, researchers should know no bounds when recommending strategies that contradict the "common knowledge" of what consumers say they want.
4. Governments will also need public policy research employing innovation to understand how best to mobilize citizens to take action on climate change. Governments must see themselves as catalysts of change rather than providers of services and researchers can help lead the way.

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