

Resistance to sustainability in organisations: Analyses of the importance of sustainability barriers to change

Abstract

Organisations in civil society, companies, and governments contexts have been instrumental in driving sustainability. Organisational change for sustainability aims to move an organisation from the current state to a more desirable one. An increasing body of literature has been focussed on organisational changes, including drivers for and barriers to sustainability. This paper focusses on analysing factors of sustainability resistance in organisations. A survey was sent to more than 1500 organisations to analyse sustainability barriers to change, of which 73 completed all the questions. The survey responses were analysed using descriptive statistics, rankings in order of importance, comparison between types of organisations, and analyses of the interlinkages between barriers to change. The statistical methods and tests used were Friedman, Kruskal-Wallis, Mann Whitney U, principal component analysis, and network analysis. The barriers to sustainability were ranked in order of importance within their category: individual-, group- and organisational. Most important barriers we found to be lack of information and awareness, sustainability not being prioritised highly, and simple cynicism. On a group level, the most important barrier was 'ignoring group institutions'. On the organisation level, barriers such as financial issues, and a lack of resources, incentives and accountability were considered very important. Although a very higher number of barriers were included in the survey, they numbers were reduced to 20 using a principal component analysis. The analysis shows that many barriers are highly interlinked within their categories. Further analysis shows that many of the barriers are highly interlinked across categories, indicating that efforts at overcoming the barriers should be done in a holistic way. This paper shows that barriers to change will affect organisations in different ways depending on their goals and contexts. This paper provides depth to the sustainability barriers to change discussion by: 1) providing the importance of each barrier; 2) offering a ranking of the barriers in general and for each type of organisation; 3) analysing the relations between barriers and grouping them according to their correlations; and 4) showing the relations between the barriers' groups. This research highlights that it is important to recognise which barriers have the highest importance and influence, in order to overcome them and make organisations more sustainable. Identifying the barriers to change can help to apply appropriate strategies to overcome them, thus helping to better incorporate and institutionalise sustainability in organisations.

1. Introduction

Organisations are an integral part of modern societies (Scott & Davis, 2015) and sub-systems of a larger environmental system (Porter, Lawler, Edward E, & Hackman, 1975; Stacey, 1993). Organisations in civil society (including society at large, education institutions, and non-governmental organisations), companies (small, medium, large, national, international, and transnational), and public agencies (local, regional, and national) contexts have been instrumental in driving sustainability (Holliday, Schmidheiny, & Watts, 2002) .

In recent years, a new body of literature has appeared that has focused on organisational change management for sustainability, including values, visions, philosophies, policies, employee empowerment, and change management practices) (Doppelt, 2003; Dunphy, Griffiths, & Benn, 2014); hierarchy approaches (top-down or bottom-up) (Doppelt, 2003); upper management initiatives (Siebenhüner & Arnold, 2007); links between sustainability reporting and organisational change management (Ceulemans, Lozano, & Alonso-Almeida, 2015; Domingues, Lozano, Ceulemans, & Ramos, 2017; Lozano, Nummert, & Ceulemans, 2016); implementing SD in higher education (Barth, 2013; Holmberg & Samuelsson, 2006; Lozano, 2006); drivers to change (Lozano, 2015; Lozano & von Haartman, 2017); and barriers to change (Lozano, 2013).

Organisational change for sustainability aims to move an organisation from the current state to a more desirable one (Lozano, 2013). Organisational changes that threaten the *status quo*, such as moving away from unsustainable practices towards more sustainable ones, are bound to face resistance at the different organisational levels (Gill, 2003; Maurer, 1996).

Organisational changes that threaten the status quo, such as moving away from unsustainable practices towards more sustainable ones, are bound to face resistance at some level, the individual, groups, organisations, sectors and society (Bovey & Hede, 2001; Gill, 2003; Kotter & Schlesinger, 1979; Lorenzi & Riley, 2000; Maurer, 1996). Resistance to change is a common phenomenon to planned changes (Gill, 2003; Lorenzi & Riley, 2000). It arises when passing from the known to the unknown (Bovey & Hede, 2001; Kotter & Schlesinger, 1979; Martin, 1998) and slows or stops movement (Maurer, 1996). The major constraint in such processes is the ability of people to accommodate change (Dent & Galloway Goldberg, 1999; Garvin & Roberto, 2005; Maurer, 1996), *i.e.* their social habits (Lewin, 1947), where the larger the change the stronger the resistance (Maurer, 1996).

Most research on barriers to sustainability change has been done on the corporate sector (Lozano, 2013). Although there has been some research in other organisations (Blanco-Portela, Benayas, Pertierra, & Lozano, 2017), this is still limited.

This paper provides depth to the sustainability barriers to change discussion and expands it to the three types of organisations (companies, civil society, and public agencies). The paper is structured in the following way: Section 2 provides a discussion on barriers to change for sustainability; Section 3 describes the methods used; Section 4 discusses and analyses the results; and Section 5 presents the conclusions.

2. Barriers to sustainability change

Several authors (see Chin & Benne, 1969; Doppelt, 2003; Kanter, 2003; Maurer, 1996) have recognised a large number of barriers to change that affect the different organisational levels (for a compendium of these generic barriers and strategies to overcome them and their corresponding attitudes, refer to Lozano, 2009).

The most commonly recognised barriers to change found in the literature include (Lozano, 2009): misunderstanding or lack of communication, lack of trust, and threat to job status/security (for individuals); group culture, ignoring institutions in the group, and individual – group conflict (for groups); and lack of strategy/long term plans; bureaucracy or patriarchal models; an lack of top management commitment (for the organisation)

Table 1 presents corporate sustainability barriers affecting individuals. Most of these belong to the emotional attitude, such as unwillingness to change and denial. The organisational barriers (see Table 2) are divided into five groups Managerial (including leadership, departmentalism, strategy and planning, and empowerment), Organisational (Org. in the table) (how the organisation is structured and aligned, and measurement and assessment), Supportive (support given or denied to the employees), Historical (related to the evolution of the organisation or the changes attempted within). As it can be seen from Table 2, most of the barriers belong to the managerial category and to the emotional attitude.

Table 1 Individuals' barriers to change that affect Corporate Sustainability

Barrier to change	Attitude
Lack of awareness	Informational
Unwillingness to change	Emotional
Denial about operations' effects to the environment and societies	Emotional
Linear thinking	Informational/Emotional
Fear/despair about needed changes and how to deal with them	Emotional
Extra work added to day to day activities	Behavioural

Source: (Lozano, 2009, 2013)

Table 2 Organisational internal barriers to change that affect Corporate Sustainability

	Barrier to change	Attitude
<i>Managerial</i>	Short-term and discounting perspectives focusing on economic aspects	Informational
	No clear business case	Informational
	Narrow focus of Sustainability, <i>i.e.</i> confusing it with pollution prevention, recycling, waste management, or eco-efficiency	Informational
	Economic assumptions of free goods, <i>i.e.</i> goods that are not yet scarce or valued by the market are free	Informational/ Emotional
	Linear thinking	Informational/ Emotional
	Lack of systems thinking	Emotional
	Patriarchal thinking and structures	Emotional
	Lack of rationale and purpose clarity	Emotional
	Faith in technological solutions	Emotional
	Lack of management commitment	Emotional
	Lack of motivation of middle- and lower-level staff	Emotional
	Faith in market solutions	Emotional
	Reticence or fear of transparency and reporting	Emotional
	Insular thinking and acting	Emotional/ Behavioural
	Costs externalisation	Behavioural
	Economic focus that disregards or consider environmental and social aspects as costs	Informational/ Emotional/ Behavioural
<i>Org.</i>	Insufficient mechanisms for learning	Informational
	Lack of trans-disciplinarity	Emotional/

		Behavioural
	Failing to alter cultural traits	Behavioural
	Failure to institutionalise Sustainability, <i>i.e.</i> not changing the cultural and mental models	Behavioural
	Organisational structures inhibiting collaboration	Systemic
<i>Supportive</i>	Lack of trained employees, <i>i.e.</i> universities not yet preparing them in SD and trans-disciplinarity	Informational
	No clear vision of Sustainability that leads to mere compliance with regulations	Emotional
	Lack of communication	Systemic
	Lack of systems, tools and instruments for operationalisation and implementation	Systemic
	Failure to incorporate Sustainability in core policies and procedures	Systemic
<i>Historical</i>	Unsuccessful incorporation attempts	Behavioural

Source: (Lozano, 2009, 2013)

3. Methods

A survey was developed for investigating the importance of the sustainability barriers to change in the three types of organisations. Most of the question figure on a four-point scale (not important to very important). They were complemented with open-ended questions to find out if there were any missing barriers to change. The survey was applied using the online survey-tool Qualtrics (2014). The data collection took place from June to October 2017. The survey consisted of five sections:

- 1) Company characteristics, including country of origin and size;
- 2) Role of respondent in the company;
- 3) Sustainability questions (on a 1-5 Liket scale), such as the importance of economic, environmental, and social issues, as well as the influence of stakeholders;
- 4) Barriers to sustainability change, sub-divided into:
 - 1) Individuals;
 - 2) Groups;
 - 3) Organisation; and
 - 4) Systemic.
- 5) Lessons learnt.

The survey was sent to a database of 1,574 contacts from different organisations obtained from the Global Reporting Initiative list of organisations, complemented with LinkedIn® and personal contacts. In addition, 106 anonymous links were sent out. Two reminders were sent out, one in September 2016 and the second one in October 2016. From the total list of emails, 37 emails bounced back. From the total, 73 full responses were obtained, with a response rate (after removing the ones that bounced back) of 4.44%.

3.1. Data analysis methods

The barriers to change were analysed with the help of the Multi-dimensional Sustainability Influence Change (MuSIC) memework (Lozano, 2008, 2013), see Figure 1. The memework analyses were made using a relative percentage of the barriers in respect to the total barriers to change identified against the organisational levels and their respective attitudes (see Lozano, 2009 for the entire list). The total numbers of CS barriers to change are presented in Table 3. It can be seen on Table 7 that the majority of the barriers to change are on the organisational level and on the individual emotional and behavioural categories. Individual-informational is 8 items as misunderstanding/lack of communication is split into 2 in the database

Table 3 Total numbers of barriers to change that affect Corporate Sustainability identified from the literature

Barriers to change				
System levels	Informational	Emotional	Behavioural	Systemic
<i>Individuals</i>	8	25	18	
<i>Groups</i>	0	1	4	
<i>Organization</i>	19	22	27	16

Source: (Lozano, 2009, 2013)

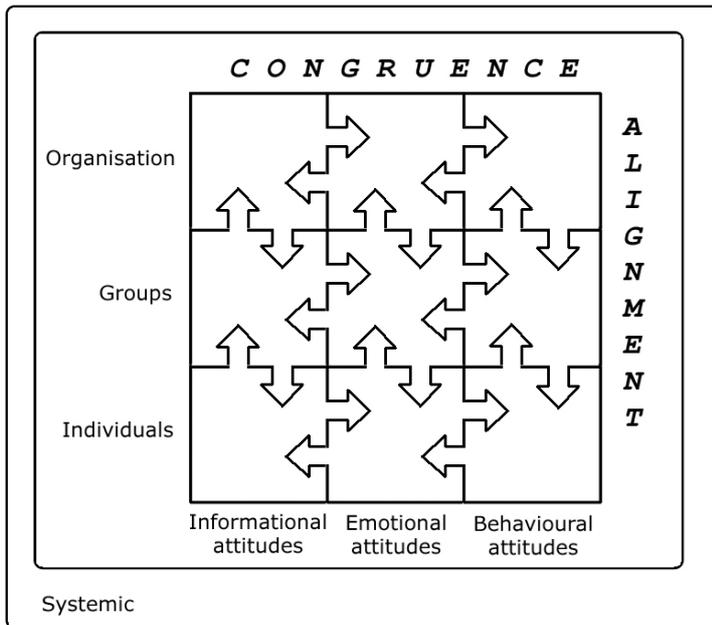


Figure 1 MuSIC memework (Lozano, 2013)

The survey responses were analysed using descriptive statistics, rankings in order of importance, comparison between types of organisations, and analyses of the interlinkages between barriers to change. The statistical methods and tests used were Friedman, Kruskal-Wallis, Mann Whitney U, principal component analysis, and network analysis. The barriers to sustainability were ranked in order of importance within their category: individual-, group- and organisational.

The first part of the analysis concerned combining the variables within each of the 9 categories in table 3. Note that there were no items in one of the categories, group-informational, which leaves 8 used in the analysis. Note that the group-emotional category consists of a single item. The rest, 7 items, were combined within each category: the mean value is used in further analysis. To test for internal consistency, Cronbach alpha was calculated for each category: The values were all at high levels, the lowest being 0.83 for group-behavioural, which, not-coincidentally, contained the lowest number of items, 4. Cronbach is heavily dependent on the number of items (Cortina, 1993).

The second part of the analysis concerned comparing the relative importance of each category of barriers to sustainability. This was achieved by comparing mean average between the groups, coupled with a one-way ANOVA, which is a suitable test for comparing mean values across multiple categories (Moore and McCabe, 2006). The final part of the analysis was a Pearson correlation analysis between the categories of barriers.

3.2. Limitations of the methods

The internal validity of this research might have been limited by the survey, which may not have

offered a complete model of all the sustainability barriers to change in organisations. The framework against which the barriers to change were tested was developed for companies, and it may not be fully comparable against other types of organisations. The number of respondents (108) may not allow a complete generalisation to all types of organisations. The generalisability of results to all organisations may be limited to the application of a non-random sampling procedure and the focus on companies listed in the GRI Disclosure Database with additional input from personal contacts and ‘snowballing’ methods. A non-response bias may be caused by companies from sectors which were contacted, but refused to complete the survey. Generalizability could be improved by a study based on a randomly selected sample drawn from the total number of organisations active in sustainability. The number of barriers to change in each category are not the same (with nine internal ones, seven connecting ones, and twelve external ones), which may affect generalisation of the results.

The large number of barriers might have resulted in a low number of responses. The use of Sunet was not ideal, since it is not one of the most user-friendly survey software. There were 37 emails that bounced back.

4. Findings

The barriers to sustainability were ranked in order of importance within their category: individual-, group- and organisational. Most important barriers we found to be lack of information and awareness, sustainability not being prioritised highly, and simple cynicism. On a group level, the most important barrier was ‘ignoring group institutions’. On the organisation level, barriers such as financial issues, and a lack of resources, incentives and accountability were considered very important. Although a very higher number of barriers were included in the survey, they numbers were reduced to 20 using a principal component analysis. The analysis shows that many barriers are highly interlinked within their categories. Further analysis shows that many of the barriers are highly interlinked across categories, indicating that efforts at overcoming the barriers should be done in a holistic way.

The index of 8 variables was calculated according to the cells in figure 1, with the exception of “group information” since it did not contain any items. The “systemic” items are omitted. Items classified in several categories are counted multiple times, i.e. in all assigned categories. The values in table 4 show the mean average of all the barriers to change with the category. A value of “0” equals “extremely important” and a value of “4” equals “not at all important”. The most important barriers to change are thus individual- informational and group-emotional, although the latter one is based on a single item. The least important barriers to change are group-behavioural, individual-emotional and organisational-informational.

Table 4 Descriptive statistics of barriers to change categories

	N	No. of items	Mean**	Std. Deviation
Individual_informational	72	7	3.59	0.91
Individual_Emotional	72	25	3.12	0.74
Individual_Behavioural	72	19	3.33	0.88
Group_Emotional	72	1	3.64	1.24
Group_Behavioural	72	4	3.09	0.85
Organisational_Emotional	72	20	3.15	0.84
Organisational_Informational	72	19	3.27	0.84
Organisational_Behavioural	72	26	3.23	0.87
Valid N (listwise)	72			

**p<0.01 (ANOVA)

Table 5 Correlations between categories of barriers to change

	Individual_informational	Individual_Emotional	Individual_Behavioural	Group_Emotional	Group_Behavioural	Organisational_Emotional	Organisational_Informational	Organisational_Behavioural
Individual_informational	1	.835**	.859**	.629**	.605**	.821**	.811**	.806**
		.000	.000	.000	.000	.000	.000	.000
	72	72	72	72	72	72	72	72
Individual_Emotional	.835**	1	.922**	.680**	.786**	.893**	.866**	.867**
	.000		.000	.000	.000	.000	.000	.000
	72	72	72	72	72	72	72	72
Individual_Behavioural	.859**	.922**	1	.794**	.819**	.912**	.903**	.902**
	.000	.000		.000	.000	.000	.000	.000
	72	72	72	72	72	72	72	72
Group_Emotional	.629**	.680**	.794**	1	.694**	.672**	.706**	.666**
	.000	.000	.000		.000	.000	.000	.000
	72	72	72	72	72	72	72	72
Group_Behavioural	.605**	.786**	.819**	.694**	1	.774**	.772**	.765**
	.000	.000	.000	.000		.000	.000	.000
	72	72	72	72	72	72	72	72
Organisational_Emotional	.821**	.893**	.912**	.672**	.774**	1	.933**	.968**
	.000	.000	.000	.000	.000		.000	.000
	72	72	72	72	72	72	72	72
Organisational_Informational	.811**	.866**	.903**	.706**	.772**	.933**	1	.935**
	.000	.000	.000	.000	.000	.000		.000
	72	72	72	72	72	72	72	72
Organisational_Behavioural	.806**	.867**	.902**	.666**	.765**	.968**	.935**	1
	.000	.000	.000	.000	.000	.000	.000	
	72	72	72	72	72	72	72	72

**p<0.01, Pearson correlations

Table 5 shows extremely high correlations between the variables, which may be due to: 1) single respondent bias; or 2) the variables, and the items they consist of, are extremely strongly related. The latter point may mean that all the variables are highly related (and further statistical studies should be carried out) or that the categorisation of the barriers to change (as proposed by (as proposed by Lozano, 2009, 2013) may not be correct, and thus a new categorisation should be proposed.

5. Discussion and conclusions

This paper shows that barriers to change will affect organisations in different ways depending on their goals and contexts. This paper provides depth to the sustainability barriers to change discussion by: 1) providing the importance of each barrier; 2) offering a ranking of the barriers in general and for each type of organisation; 3) analysing the relations between barriers and grouping them according to their correlations; and 4) showing the relations between the barriers' groups.

This research highlights that it is important to recognise which barriers have the highest importance and influence, in order to overcome them and make organisations more sustainable. Identifying the barriers to change can help to apply appropriate strategies to overcome them.

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