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Sustainability insights from the mission statements of leading Brazilian Universities

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Sustainability insights from the mission statements of leading Brazilian Universities

Statements of
leading
Brazilian
Universities

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Abstract

Purpose – The purpose of this paper is to investigate the mission statements from 30 leading Brazilian universities, evaluating the statements based on a sustainable model that involves an environmental management system, public participation and social responsibility, and sustainable education and research.

Design/methodology/approach – Content analysis was conducted on the mission statements. The points used were based on the campus sustainability model of Alshuwaikhat and Abubakar. After grading, the Pearson correlation was verified for indicator and ranking points.

Findings – The authors find few universities with clear sustainability aspects in their mission statements; just 10 percent of institutions achieve five points out of a maximum of nine points.

Research limitations/implications – This study analyses only mission statements, which do not provide substantiated real sustainable action as much as reporting does.

Practical implications – Higher education managers should review the universities' mission statements in terms of a sustainability overview and improve the statements.

Social implications – The authors criticize the real mission stated by leading Brazilian universities and their true role in society.

Originality/value – Studies frequently focus on reporting and this work instead focusses on mission statements, which are important for guiding reporting and acting as a strategic tool. The results highlight aspects that have only been rarely addressed by Brazilian universities.

Keywords Sustainability, Social responsibility, Mission statement, Higher education, Environmental management, Indicators

Paper type Research paper

1. Introduction

1.1 Sustainability in higher education

Sustainability in higher education is a global question for university managers because the activities and operations of their institutions have environmental impacts. Universities are industries and parts of society and are therefore not immune to causing ecological damage due to consumption of energy and materials (Viebahn, 2002). This study arose due to societal, non-governmental organizations and other sustainable movement pressures (Alshuwaikhat and Abubakar, 2008) that are essential for democracy and world development.

A sustainable university must to help its society with environmental problems through teaching, research, outreach and partnership, enabling the society to change in more sustainable ways (Velazquez *et al.*, 2006). Furthermore, universities can also



create social, economic and environmental benefits, including efficient energy and material use, waste reduction, improvements to institutional image, and others (Geng *et al.*, 2013).

1.2 Mission statement

Universities have changed over the years; in medieval times, European universities emphasized teaching. Now, public service missions are emphasized by modern universities, although the triad of teaching, research and public service is held in esteem as well (Scott, 2006).

As a strategic tool for organization, the mission statement gives a unity of direction, creates common values, reflects the institution's reality, provides direction and purpose, promotes shared hope and affirms the commitment of the organization to survive and grow (Campagna and Fernandez, 2007; Desmidt *et al.*, 2011; Pearce, 1982). Additionally, the mission statement affirms a positive relationship with the financial performance of the organization, provides sense of direction and purpose and highlights the organizational values of the institution (Desmidt *et al.*, 2011).

The mission is very important for organizations because it "can help focus the organization on what really matters – to itself as well as to its stakeholders" (Ireland and Hirc, 1992). If sustainability matters for a university, its mission statement should focus on social, economic and environmental aspects – the triple bottom line. Furthermore, the action of the organization creates sustainable value, contributing to sustainable development and generating the triple bottom line advantage (Hart and Milstein, 2003).

As Tilbury and Fellow (2010) assert, higher education organizations have opportunities to more thoroughly insert sustainability into their organizational structures and culture. In addition, the first goal of the mission statement is to align with sustainable aspects. The mission statement is a critical sustainability area for the sustainability assessment questionnaire (SAQ) and the Audit Instrument for Sustainability in Higher Education (Steiner and Streissler, 2010). It is a qualitative indicator, among others, for sustainability assessment (Urquiza Gómez *et al.*, 2015).

According to Velazquez *et al.* (2006), each university should have its sustainability concept, but the study revealed that just 8 percent of 80 universities included sustainability in their mission statement. However, 57 percent of respondents stated that their universities have strategic documents about health, environment and community responsibility.

1.3 Indicators for sustainability

Indicators for sustainability are tools to help managers make decisions related to high performance and progress; these indicators provide a ranking and comparisons between and among organizations (Greene and Tonjes, 2014). Performance indicators can provide comparable information about economic, social and environmental factors that can influence stakeholders (Global Reporting Initiative, 2011). Therefore, a basic question is why managers do not use indicators. First, there is the idea that managers do not use indications in actuality. Another idea is that managers lack an understanding of indicators and knowledge of who to use them (King *et al.*, 2000). This research accordingly tries to determine whether indicators are contained within the mission statements of leading Brazilian universities.

Several tools are used to assess sustainability, such as the currently used Global Reporting Initiative (GRI). However, these tools are not enough for universities, because

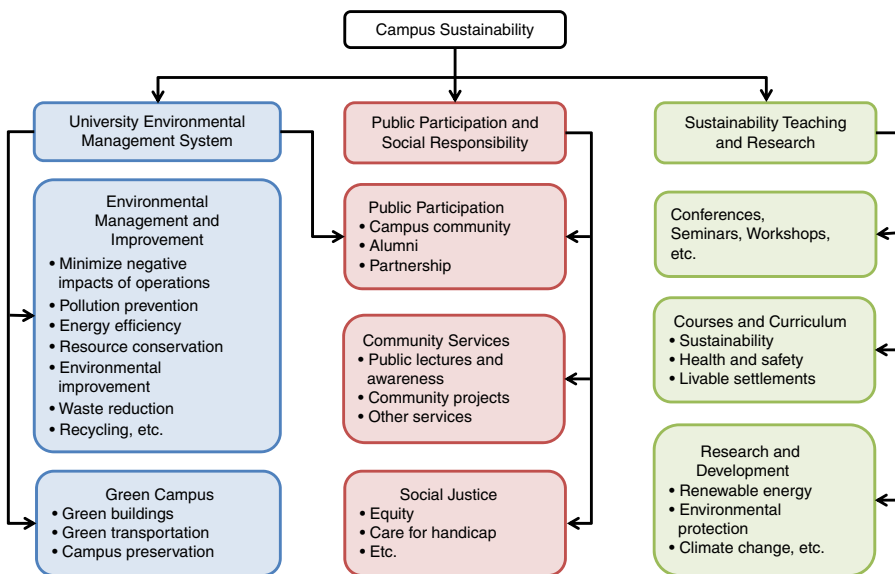
they lack curriculum, research and services evaluations (Lozano, 2006). Furthermore, the GRI assesses the reporting of organizations and does not focus on mission statements. It is worth considering that university reports about sustainability are still in their early stages, compared with the reports of corporations (Lozano, 2011). Furthermore, only a small percentage of universities disclose their sustainability performance (Fonseca *et al.*, 2011).

This research uses the content analysis method and sustainability model of Alshuwaikhat and Abubakar (2008) as indicator of mission statements; the model involves environmental management system at the university, public participation and social responsibility, sustainable education and research (Figure 1). This model is high cited in databases such as Scopus and the ISI Web of Science and highlights that on-campus sustainability promotes conservation of resources and energy, reduces waste and improves efficiency in environmental management, promotes equality and social justice and enhances communication with the larger community. These values are all essential for a world that wants to develop in a sustainable way to maintain natural resources available for future generations (World Commission on Environment and Development, 1987).

1.4 Hypotheses and research design

According to the introduction, we have formulated the following hypotheses:

- H1. Leading Brazilian higher education institutions have a lack of sustainable indicators in their mission statements.
- H2. These universities have difficulty inserting sustainability aspects in their mission statements because of the non-dependency of stakeholders.



Source: Alshuwaikhat and Abubakar (2008)

Figure 1.
University
sustainability model

H3. There is no correlation between ranking notes and indicators on mission statements.

These hypotheses come from several questions: if organizational mission is important and universities must be sustainable and have responsibility for sustainability, is it possible to achieve these goals in tandem? If there are indicators for assessment sustainability, are these statements contained within the mission statement? What sustainable aspects do universities take into account in their statements? What is the Pearson correlation between ranking notes and indicators in mission statements?

Based on secondary data and the analysis content method, we aim to determine the necessary information to solve these questions and prove our hypotheses. Our goal is to understand the current relationship between leading Brazilian universities mission statements and sustainability indicators.

2. Methods

This study follows the work flow from Ghauri and Grønhaug (2005) about secondary data, an important method for solving, understanding and explaining the problems of this research (Figure 2).

We employed the content analysis method, similar to Holcomb *et al.* (2007), who used this method to identify the corporate social responsibility in the mission or vision statements of leading hotel companies. Dade and Hassenzahl (2013) also used this method to assess 700 websites from higher education institutions to determine how they communicated sustainability. Since other researchers (Chapleo *et al.*, 2011; Berthelot *et al.*, 2013; Fonseca *et al.*, 2011; Özdem, 2011; Wilson *et al.*, 2011) have also

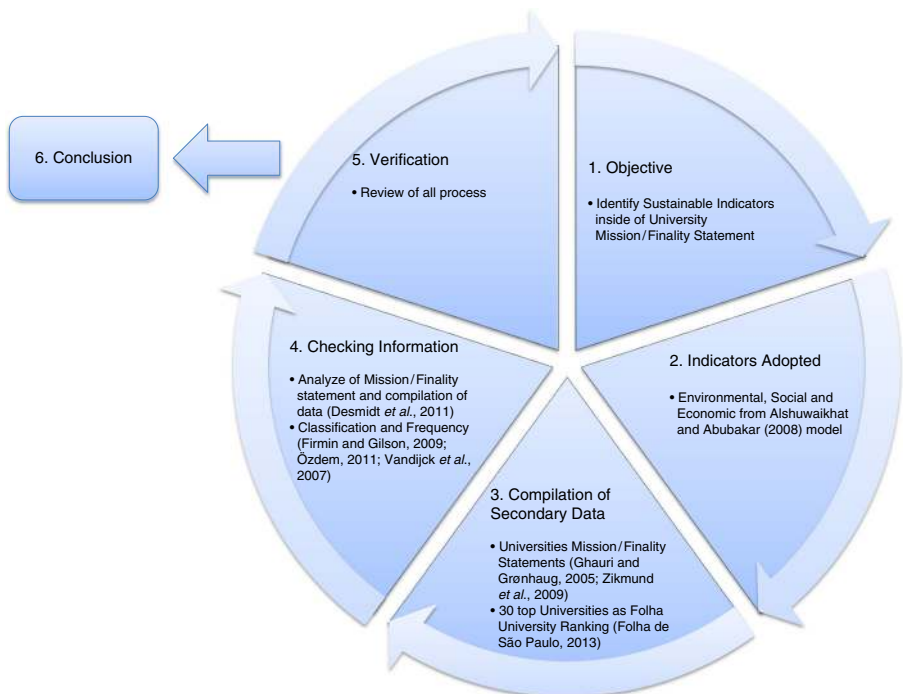


Figure 2.
Adapted from the steps of the Ghauri and Grønhaug (2005) method

commented on and adapted this methodology in their research, we adopted this procedure in our own work.

2.1 Objective

After elaborating our hypotheses because of questions, we traced our objective and choose the method for the best results and discussion.

2.2 Indicators

Several indicators assess sustainability in higher education: the National Wildlife Federation’s State of the Campus Environment, the SAQ, the Auditing Instrument for Sustainability in Higher Education, Higher Education 21’s Sustainability Indicators, Environmental Workbook and Report Greening Campuses, Campus Ecology, the Environmental Performance survey, *Indicators Snapshot/Guide*, *Grey Pinstripes with Green Ties* and the Environmental Management System Self-assessment Source (Shriberg, 2002). However, these indicators assess the “what” and “how” the institutions are doing and not the “why.” There are others assessment tools for sustainability in higher education that include an institutional commitment. An indicator of these tools is the mission and vision statement (Urquiza Gómez *et al.*, 2015). However, this indicator fails to measure specific motivations, which is provided mainly by the mission statement (Ireland and Hirc, 1992), because the indicator recognizes the general declaration of sustainability by institution and not specific topics, as proposed by this research (Firmin and Gilson, 2009).

To address this problem, we used the sustainability model from Alshuwaikhat and Abubakar (2008) as an indicator in the mission statement, assigning three points to each branch. Therefore, if a university takes into account environmental management system, public participation and social responsibility, sustainable education and research in its mission statement, it can attain nine points, as shown in Table I.

“Environmental management and improvement” refers to a healthy campus environment aimed at minimizing the negative impact of institution activities and operations, such as waste, effluent generation, emissions reduction, and energy and resource conservation. The concept of a “green campus” involves constructing energy-efficient buildings and transportation facilities and the preservation of green spaces, historic sites and landforms (Alshuwaikhat and Abubakar, 2008).

Indicator	Points
Environmental management system	3.0
Environmental management and improvement	1.5
Green campus	1.5
Public participation and social responsibility	3.0
Public participation	1.0
Community services	1.0
Social justice	1.0
Sustainable education and research	3.0
Conferences, seminars, workshops, etc.	1.0
Course and curriculum	1.0
Research & development	1.0
Total	9

Table I.
Indicators of
sustainability
according to the
Alshuwaikhat and
Abubakar (2008)
model

“Public participation” involves partnership with other institutions, private, public or non-governmental, and the cooperation with all stakeholders. “Community services” refers to campus projects and services that are integrated with the local community. “Social justice” is the promotion of human dignity, equality, peace and justice, and human rights (Alshuwaikhat and Abubakar, 2008).

“Conferences, seminars and workshops” refers to promotion opportunities for organizations, in industry and academia, to discuss and study environmental and socio-economic issues. “Courses and curricula” pose questions about environmental preservation, economic empowerment, gender equality, resource conservation, global warming, and other environmental, social and economic topics into the curriculum. “Research and development” promotes research related to the environmental and social problems of humanity (Alshuwaikhat and Abubakar, 2008).

2.3 Secondary data

It is possible to extract secondary data from internal or external sources of an organization. External sources are accessible for research from governmental publications (Zikmund *et al.*, 2009) and are helpful for solving research problems and formulating research questions (Ghuri and Grønhaug, 2005). Therefore, for this study, we extracted data from the mission statements of 30 leading Brazilian universities. These statements are freely available in Portuguese. We simply extracted the mission chapter from the statements; this chapter typically outlines the goals of the university.

The 30 leading Brazilian universities (Table II) were selected from the Folha University Ranking that measures 192 institutions in five areas: research, innovation, internationalization, education and market (Folha de São Paulo, 2013). This ranking system is the primary ranking mechanism for national universities in Brazil.

2.4 Checking information and verification

The content analysis method uses data from secondary sources; in this case, we used mission statement from universities. This method uses systematic analysis and observation to identify the objective point and quantify the points for comparison (Zikmund *et al.*, 2009). Content analysis is an useful method for analyzing mission statements (Conway *et al.*, 1994). We can accordingly identify the indicators of sustainability in mission statement and give them a grade and to compare leading universities to reveal if this subject is relevant in mission statements. We used a text analyzer (Textalyser, textalyser.net Text Analysis v. 1.05) to calculate the frequency of leading words; the minimum characters per word was four. The frequencies of these words in mission statements were used in others studies to analyze the main subjects and to compare similarities among institutions (Firmin and Gilson, 2009; Özdem, 2011; Vandijck *et al.*, 2007).

After checking and grading, we verified again all data for correction of possible errors and we calculated the Pearson correlation between the ranking points and the indicators points.

3. Results

3.1 Indicator analysis

Figure 3 shows that 80 percent of universities address sustainable education and research in their mission statements, but just 10 percent attain the maximum number

Rank	Rank points	University	Leading words (translated)	Frequency (%)
1	96.89	Universidade de São Paulo (USP)	Teaching	5.8
2	95.64	Universidade Federal do Rio de Janeiro (UFRJ)	Creation	2.6
3	94.9	Universidade Federal de Minas Gerais (UFMG)	University	5.1
4	94.58	Universidade Federal do Rio Grande do Sul (UFRGS)	Community	3.7
5	94.27	Universidade Estadual de Campinas (UNICAMP)	Community University	2.6 2.6
6	91.76	Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP)	Teaching Culture	3.1 3.1
7	91.7	Universidade Federal de Santa Catarina (UFSC)	Outreach Creation	3.1 1.9
8	91.65	Universidade de Brasília (UNB)	Development Scientific	1.9 1.9
9	90.1	Universidade Federal do Paraná (UFPR)	Commitment Teaching	3.6 3.6
10	89.21	Universidade Federal de Pernambuco (UFPE)	Staff Knowledge	2.7 2.6
11	88.01	Universidade Federal de São Paulo (UNIFESP)	Research	2.6
12	85.66	Universidade Federal de São Carlos (UFSCAR)	Cultural	2.6
13	85.04	Universidade do Estado do Rio de Janeiro (UERJ)	Teaching	2.6
14	84.82	Universidade Federal de Santa Maria (UFSM)	Realize	2.6
15	84.31	Pontifícia Universidade Católica do Rio de Janeiro (PUC-RIO)	Special UNIFESP	2.6 5.1
16	84.26	Universidade Federal do Ceará (UFC)	University UERJ Development Human Cultural Teaching Activities	2.7 6.4 2.4 1.8 1.8 2.5 2.5

(continued)

Table II.
The leading 30
universities from the
Folha University
ranking and the
frequency of words
in their mission
statements

Table II.

Rank	Rank points	University	Leading words (translated)	Frequency (%)
17	83.66	Universidade Federal da Bahia (UFBA)	Society	2.3
			Development	2.3
18	83.49	Universidade Federal Fluminense (UFF)	Research	3.3
19	82.94	Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS)	Promote	3.7
20	82.81	Universidade Federal de Viçosa (UFV)	Research	5.9
21	81.94	Universidade Federal de Uberlândia (UFU)	Training	2.7
22	80.93	Universidade Estadual de Maringá (UEM)	Knowledge	2.5
			Creation	2.5
			Cultural	2.5
			Development	2.5
23	79.29	Universidade Estadual de Londrina (UEL)	Knowledge	4.3
24	75.94	Universidade Federal da Paraíba (UFPB)	Development	2.6
25	75.88	Universidade Federal de Goiás (UFG)	National	3.0
26	75.43	Universidade Federal do Pará (UFPA)	Knowledge	2.5
			Cultural	2.5
			Amazon	2.5
27	74.82	Universidade Presbiteriana Mackenzie (MACKENZIE)	Development	3.1
28	74.61	Universidade Federal de Pelotas (UFPEL)	Institution	4.7
			Social	4.7
29	74.61	Universidade Federal do Rio Grande do Norte (UFRN)	Knowledge	3.8
			Develop	3.8
30	74.2	Universidade Federal de Juiz de Fora (UFJF)	Training	2.5
			Cultural	2.5
			Development	2.5
			Activities	2.5
			Aim	2.5
			National	2.5

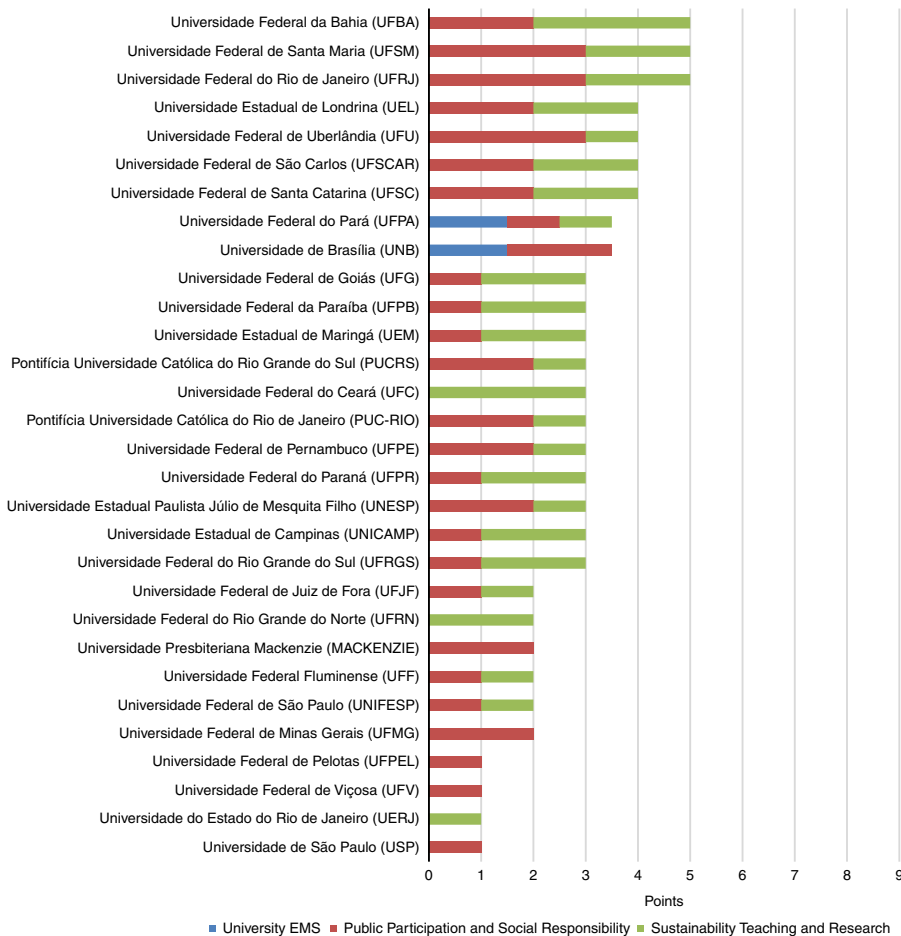


Figure 3.
Sustainability
indicators from
mission statements
from 30 leading
Brazilian universities

of points (three). It is important to note that we considered general subjects for sustainable education and research and not specifically the word sustainability in the mission statement. For public participation and social responsibility, 90 percent of institutions discussed this term and 10 percent of universities attained the maximum number of points (three). However, for environmental management system, just two universities (6.6 percent) explored this topic in their mission statement and neither one attained three points.

The Pearson correlation was 0.1512, meaning that we recovered no correlation between ranking and indicators in the mission statements.

3.2 Word frequency analysis

Table II presents the ranking, universities, main words and their frequency in the mission statements. The analysis provides insights about what is important to universities, i.e., their core missions. When we analyzed all of the statements together, the main words that emerged were: development (1.6 percent), research (1.5 percent),

university (1.4 percent), teaching (1.4 percent), knowledge (1.3 percent), training (1.1 percent), community (0.9 percent), promote (0.9 percent) and outreach (0.9 percent).

It is also important to consider that the word “sustainability” or “sustainable” appears twice, in the statements of two universities, and that the word “environment(al)” appears five times in five statements.

4. Discussion

We find few sustainability indicators within the mission statements of leading Brazilian universities, as Figure 3 shows. These results agree with the findings of Hladchenko (2013), although this author did not aim to analyze sustainable indicators, but instead used content analysis to evaluate mission statements from 30 German universities. Hladchenko (2013) discovered that the most popular subjects contained within the mission statements included “equal rights,” “opportunities for men and women,” “internationality,” “unity of research and teaching,” “quality assurance” and “interdisciplinarity.”

We found that 90 percent of universities cited the public participation and social responsibility indicator. This result is in agreement with the findings of Scott (2006), who reviewed that modern universities emphasized public service in their mission statements (whereas universities in medieval times focussed on their teaching mission (Alshuwaikhat and Abubakar, 2008)).

Just 6.6 percent of institutions explored the environmental management system indicator in their mission statement. It seems possible that this result is due to the difficulty of inserting these subjects in statements and promoting the minimizing of the negative impacts of activities and operations, energy savings, resource conservation and efficient environmental management.

Lukman *et al.* (2010) found that there is a moderate correlation (0.3418) between their sustainability indicator and a Times Higher Education, which is one of main global university rankings. This finding is in agreement with our results, which showed that the Pearson correlation was weak (0.1512). Thus, leading Brazilian universities do not necessarily have sustainable indicators on their mission statement.

A limitation of this research is that we analyzed just mission statements, which do not provide a basis of true sustainable actions of universities as reporting does. Future studies should analyze and correlate sustainable reporting and ranking, for example using GRI indicators to grade the reporting (even though few universities declare that they follow these indicators) (Disterheft *et al.*, 2012).

We verified that all hypotheses stated above are correct. These results are consistent with those of other studies and suggest that leading Brazilian universities should review their mission statements about current principles of sustainability and include in their mission statements discussions of environmental management systems, public participation and social responsibility, and sustainable education and research subjects, as in the sustainable model of Alshuwaikhat and Abubakar (2008). This improvement is essential in order to obtain strategic tools that are useful to modern society and contribute to world sustainable development.

These findings also promote the discussion the true role of universities in society and create an opportunity to discuss and review the mission statements of universities. As presented in Figure 4, the mission statement can be an indicator of sustainability and a reflection of the institution’s reality. It additionally provides

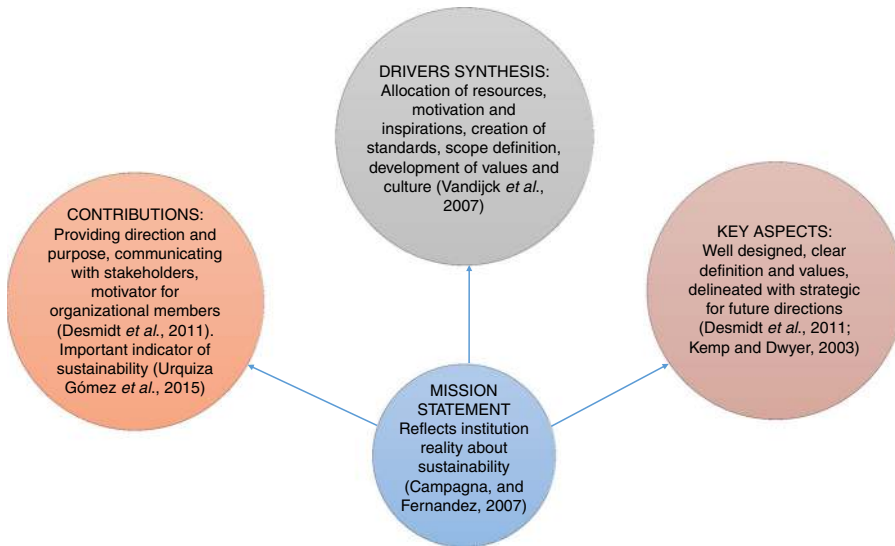


Figure 4.
Mission statement
performance for
organizations

direction and purpose, encourages good communication with stakeholders and is a great motivator for organizational members (Campagna and Fernandez, 2007; Desmidt *et al.*, 2011; Urquiza Gómez *et al.*, 2015). Therefore, it must be well designed, with clearly defined values and strategies for future directions (Desmidt *et al.*, 2011; Kemp and Dwyer, 2003).

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