Resilient Modelling for Sustainability Communication: Developing an Adaptive Organization Sustainability Communication Model (OSCM)

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Abstract

This paper reports on the development of a theoretical model for understanding corporate communication about sustainability issues to address the identified need for such a model (Bittner-Fesseler & Weicht, 2020) and to enable organizations, including those in higher education (Katiliute et. al., 2014), "to understand the possibilities and conditions of communication processes about sustainability and its underlying concepts, to recognize its deficits and to analyze and develop it conceptually" (Godmann & Michelsen, 2011, p. 9). A literature review was conducted on different definitions and perspectives of sustainability communication, corporate / organization sustainability communication, and integrated sustainability communication to identify elements that could constitute the components of an Organization Sustainability Communication Model (OSCM) (after Ki & Shin, 2015). Developing McDonagh's (1998) early work on a model for sustainability communication a simple OCSM building process was then devised for collecting, comparing, associating, and categorizing data into components with essential elements identified to constitute an Organization Sustainability Communication Model. Seven components were identified and used to produce the model that is represented diagrammatically with a detailed commentary on its use to identify the best approach for the organization's sustainability communication. The paper concludes that to successfully implement and practise OSCM, further necessary investigations should include, among others, testing of OSCM in organizations in different countries, principles for resolving conflicts arising from different interests in sustainability, variables such as industry type and firm size, and the abilities and traits needed by organization communicators to provide effective sustainability communication.

Keywords: Communication, Sustainability, Corporate/Organization Sustainability, Communication, Organization Sustainability Communication Model

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Introduction

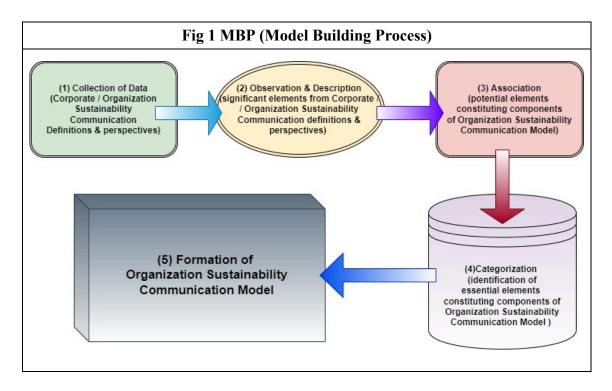
Communication is central to all human societies because of its relevance in shaping world perception (Nicotera & Putnam, 2009). Sustainability communication is "a relative new concept "(AdomBent & Godemann, 2011, p. 27). It is "a path responsible for facilitating ... mutual understanding" in sustainability (Leitzke & Marchiort, 2016, p. 110). In this context, it provides a possible way for different subjects, for example organizations and people, to interact. Corporate communication is involved in almost all activities of different businesses, and "usually granted only a supportive, rarely a strategic role" (Bittner-Fesseler & Weicht, 2020, p. 93). With the growing significance of sustainability, corporate sustainability communication is given a key role in organizations / corporations (AdomBent & Godemann, 2011).

Ki & Shin (2015) suggest replacing the term Corporate Sustainability Communication (CSC) with Organization Sustainability Communication (henceforth OSC) because it covers all kinds of organization. Given the complexity of sustainability, Siano et al. (2013) and others (Bittner-Fesseler & Weicht, 2020; Newig et. al., 2013; Inia & Serban, 2013) argue that if OSC does not follow the ideas and principles of sustainability, and is not designed sustainably, its credibility will be weakened or even lost. Nevertheless, research "is mostly limited to sustainability communication without presenting a model of sustainability communication" (Bittner-Fesseler & Weicht, 2020, p. 93). A theoretical model for OSC is necessary for another significant reason. A model can enable an understanding of "the possibilities and conditions of communication processes about sustainability and its underlying concepts, to recognize its deficits and to analyze and develop it conceptually" (Godmann & Michelen, 2011, p. 9). A model is "a simplification of the complex reality" (Osterwalder, 2004, p. 25).

In consideration of all these views, this paper attempts to develop a model of OSC by reviewing relevant literature on sustainability communication, organization / corporate sustainability communication, and integrated corporate sustainability communication.

An Organization Sustainability Communication (OSC) Model Building Process (MBP)

To identify elements that could constitute the components of an OSC model, a literature review was conducted on different definitions of and perspectives on OSC / CSC, sustainability communication and integrated sustainability communication. A simple OSC model building process (Figure 1) was developed from the methodologies proposed by Christensen & Carlile (2009) and others (Aranha et. al., 2017; Cosenz et. al., 2020; Da Silva, 2020; Jabareen, 2009; Nicotera & Putnam, 2009; Osterwalder, 2004; Sanchez-Planelles et al., 2021; Taran et al., 2015) for use in this paper to serve as a filter to identify the most rigorous elements for building an OSC model.



Literature Review

Corporate Sustainability Communication (CSC)

Corporate sustainability is "a relative concept that describes the planned and strategic management processes of working towards a balance of economic, social, and environmental goals and values" (Signitzer & Prexl, 2008, p. 3). Sustainability communication is "strategically important for achieving sustainability goals" (Bittner-Fesseler & Weicht, 2020, p. 96). Signitzer & Prexl (2008) define Corporate Sustainability Communication (CSC) as "an evolving concept that refers to corporate communication about sustainability issues" (p. 2). It includes aspects of social justice and environmental and ecological awareness in relation to economic success, corporate sustainability goals, effects and conflicts of sustainability management, Corporate Social Responsibility (CSR), sustainability of products and production processes, and stakeholder behavior (Signitzer & Prexl, 2008; Rasche et al., 2017; van Marrewijk & Werre, 2003; Wilson, 2003).

The important role of CSC is "to enable ... to develop the competences to adequately interpret the often contradictory and confusing scientific, technological and economic information ... be able to react and cope with the resulting long-term and complex societal changes" (AdomBent & Godeman, 2011, p. 27). CSC plays two roles: "... on the one hand, companies inform about their sustainability performance, and on the other ... geared towards supporting a company's sustainability efforts" (Bittner-Fesseler & Weicht, p. 96).

In his study, Brugger (2010) identified the following criteria essential for a model of CSC: "dialogue orientation; target audience orientation; the ability to integrate and to ensure a holistic representation of the three sustainability dimensions as well as integrated communication measures" (pp. 238-239). The three sustainability dimensions refer to the economic, ecological – environmental, and equity – social dimensions (Elkington, 1998).

Organization Sustainability Communication (OSC)

Signitzer & Prexl (2008) have called for attention on OSC by appealing for "organization's legitimation within society ... (and) ...primary concern of ... organization's inclusiveness ... looking at an organization from a societal view" (p. 9).

Ki & Shin (2015) have suggested using the term organization sustainability communication (OSC) instead of corporate sustainability communication for one reason. The term corporate is commonly used to refer to a profit-oriented organization. Ki & Shin (2015) argue that the term organization refers to all types of organization, including profit, non-profit, international, and governmental organizations, etc. Every type of organization is entitled to communicate its sustainability practices and policies (Babiak & Trendafilova, 2011). The term 'organization' is more inclusive and suitable (Ki & Shin, 2015). For this reason, the term Organization Sustainability Communication (OSC) is used here.

With a modification of the definition by Signitzer & Prexl (2008), Ki & Shin (2015) define OSC as "an organization's voluntary, planned and strategic communication efforts for working towards a balance of economic, social and environmental goals and values to achieve the long-term goals of an organization and its stakeholders" (p. 37).

Sustainability and Communication

"The vision of sustainability is related to concepts of modernization and development of society that entail a stronger engagement of individuals" (Godemann & Michelsen, 2011,p. 5). Communication "can be understood as a social process in which common orientations are interchanged" (ibid, p. 5). In this context, participation is relatively important for sustainability communication (Godemann & Michelsen, 2011; Newig et al., 2013).

Communication is important for sustainability in organizations (Allen, 2016) as it is through communication that "the interior is exteriorized" so that we can inform one another (Ziemann, 2007, p. 124). When there is a lack of communication in an organization, it would be difficult to implement any changes and make the organization more sustainable (Genc, 2017). "Communication, therefore, becomes a necessary component of sustainability" (Bittner-Fesseler & Weicht, 2020, p. 94).

Communication is a "mediated action with humans constructing their reality on the basis of their perceptions and experience" (Godemann & Michelsen, 2011, p. 6), and "views are exchanged" (ibid., p. 5), allowing for social construction of reality for a compromising understanding (Berger & Luckmann, 1966). Human behavior, social values and attitudes towards the world and environment are mediated by communication (Godemann & Michelsen, 2011).

Sustainability issues are characterized by a high complexity and uncertainty (Newig et al., 2013). Given these challenges, communication plays a crucial role in any sustainability strategy (Genc, 2017; Newig et al., 2013).

Sustainability goals of different stakeholders maybe "ambivalent in terms of involving conflict of interests and conflict of values" (Genc, 2017, p. 514). In view of this, the task of

communication becomes essentially important in enabling a common understanding about social values on sustainability with a compromise following ro resolve the different conflicts (Brand, 2011; Genc, 2017; Newig et al., 2013).

Godemann & Michelsen (2011) define Sustainability Communication (SC) as a "process of mutual understanding dealing with the future development of society at the core of which is a vision of sustainability" (p. 6). It is a "persuasive instrument" (Godemann & Michelsen, 2011, p. 11) and can enable "an interactive exchange of information" (Hoffstaedter, 2020, p. 10).

The process of understanding occurs on different levels and in different contexts: between individuals, between individuals and institutions, between institutions and within institutions, in schools and universities, in the media, in politics, in business, in communities and at regional, national and international levels (Godemann & Michelsen, 2011).

The significance of communication to sustainability lies in bringing a close relationship between human beings and their environment into a social discourse, developing an awareness of the problems (if there are any) about this relationship. Where the relationship between human beings and their environment creates problems, then a compromise between these problems and social values and norms is required (Godemann & Chelselsen, 2011; Leitzke & Marchiori, 2016; Newig et al., 2013; Pezet & Casalegno, 2017).

Rationale for Sustainability Communication

In their study, Newig et al., (2008) identified 3 rationales (Table 1 RSC) for resolving the complexity and uncertainty in sustainability communication.

Rationales for Sustainability Communication (RSC)					
(1)	Increased communication, dialogue and involvement of				
	stakeholders are essential to broaden the information and societal				
	values and compromise different conflicting views to reach an				
	agreement (Funtowicz & Ravetz, 1993).				
(2)	As sustainability goals are typically ambivalent (Godemann &				
	Michelsen, 2011), pursuit of a common understanding about				
	societal value(s) and goals on sustainability through participation,				
	collaboration and compromising (Weidner, 2004) is necessary in				
	sustainability communication.				
(3)	There is a high dispersion of views among different internal and				
	external stakeholders. Coordination that can enable effective				
	arguing, bargaining and social learning about sustainability is				
	required in realization of sustainability goal(s) (Newig et al., 2008,				
	2013).				
	Table 1 RSC				

Communication contributes to strengthen, relativise and compromise the various conflicting perspectives and complexities of sustainability (Godemann & Micehelsen, 2011; Leitzke & Marchiori, 2016; Newig et al., 2013; Signitzer & Prexl, 2008). Where there is no communication about, of and for sustainability, sustainability 'does not have any effect on society' (Berger & Luckmann, 1966, p. 63).

In their studies, Genc (2017) and Newig et al. (2013) proposed the adoption of the typologies of Communication about Sustainability (CaS), Communication of Sustainability (CoS) and Communication of Sustainability (CfS) to understand and approach the execution of sustainability communication.

Communication about Sustainability (CaS)

Communication about sustainability (CaS) refers to "the processes in which information, interpretation, and opinions about sustainability issues are exchanged, discussed and debated" (Newig et al., 2013, p. 2978). In these processes, sustainability issues can be transformed and framed in horizontal communication, from face-to-face interaction to the mediated level of mass communication (Neidhardt, 1993).

CaS incorporates the senders' perception of sustainability issues to be delivered to the receivers. It serves an important function of establishing a mutual understanding between the senders and receivers of CaS by framing and structuring concerns, facts, arguments and claims at stake to the receivers. CaS informs the receivers of "the goals which are required to be accomplished, and of who should take action" (Genc, 2017, p. 515) through engagement of sustainability issues awareness and creation of "a common understanding of the issue at stake" (Newig et al., 2013, p. 2978), and "construction of reality" (Brand, 2011, p. 57) and a coalition and / or a compromising of different discourses and perspectives (Hajer, 1995).

The effectiveness of CaS can be indicated by the amount of attention received from the mass media and the receivers (Bonfadelli, 2010; Newig, 2011). Another indicator is the determination of those who have access to the discourse(s) and influence the CaS framing process(es) (Weiggart et. al., 2000).

Communication of Sustainability (CoS)

Different from CaS, communication of sustainability (CoS) is instrumental (Genc, 2017; Newig et al., 2013). The flow of communication of CoS is mono-directional and sender – receiver oriented. The sender follows a particular objective of communication (Newig, 2011). The specific functions of CoS are informing and educating people and achieving social engagement (Moser, 2010). In this consideration, it is argued that CoS 'has clear intentions about its desired effects ... assessed in terms of its effectiveness' (Newig et al., 2013, p. 2979), Such effectiveness is addressed by asking 3 questions. (i) Have the recipients (of message) been reached? (ii) Have they understood the message? (iii) After receiving the message, have they changed their values and behavior? (Newig et al., 2013).

However, this mode of informing and educating ordinary people by experts is criticized (Leake & Hasting, 2010; Nerlich et al., 2010). The dominant experts' quest for effecting change at the individual level, which has only had very limited success, is questioned in favor of dialogue and discourse (Barth, 2012; Adom*B*ent & Godemann, 2011). Dialogue and discourse both take a significant role in McDonagh's (1998) model of sustainable aaa

discourse both take a significant role in McDonagh's (1998) model of sustainable communication (See Table 2 & Fig 2 PSC).

Communication for Sustainability (CfS)

The concept of CfS emphasizes the normative aspect of sustainable development (Barth, 2012; Genc, 2017; Newig et al., 2013). CfS provides information about sustainability and raises awareness for sustainability consideration. The objective of CfS is "to facilitate societal transformation towards the normative goals of sustainable development" (Newig et al., 2013, p. 2980).

Though the boundaries between CaS, CoS and CfS are "somewhat blurred" (Newig, 2013, p. 2980), they can be considered as "useful analytical tools when considering the various communication processes" (Genc, 2017, p. 516).

Model for Sustainable Communication (SC)

In his study, McDonagh (1998) developed "a model for sustainable communication (SC)" (Kilbourne, 2004, p. 193). SC is "an interactive social process of unravelling and eradicating ecological alienation that may occur between an organization and its publics or stakeholders" (McDonagh, 1998, p. 599). By use of "green, eco or environmental communications" and "the approach of … environmental consciousness and consensus" (ibid. p. 599).

As a direct outcome of green practices with consumers (Peattie, 1992; Welford & Gouldson, 1993), organizations need to "give information about their environmental claims on a right to know basis" (McDonagh, 1998, p. 600). Organizations "must be both open and honest in their communication with the public" (ibid. p. 600).

SC encourages participative communication wherever possible (Bernstein, 1992). This is important for public participation in sustainable development (Bernstein, 1992; McDonagh, 1998). The process of SC is conceived as "a way of helping society move from hyper consumption to sustainable consumption" (McDonagh, 1998, p. 600).

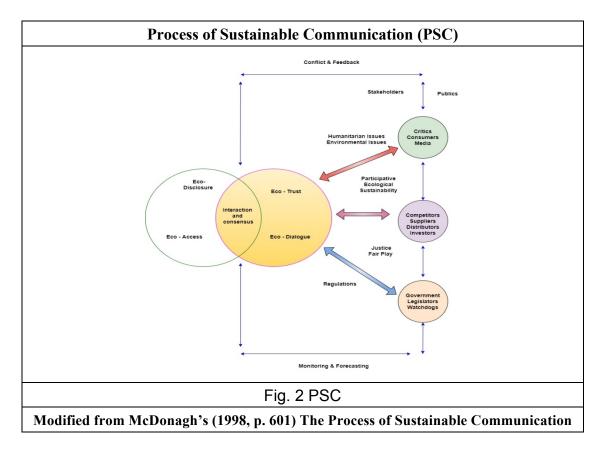
SC is characterized as "... working towards a world where humankind can preserve rather than dominate nature" (ibid. p. 600). It is important for two reasons. SC aims to bring organizations and stakeholders into partnership (McDonagh, 1998; Peattie, 1992), with messages producing meaningful responses (Munter, 1987), "yielding mutual benefit" (McDonagh, 1998, p. 600).

McDonagh's (1998) "model for sustainable communication" (as cited in Kilbourne, 2004, p. 193) essentially consists of 4 building blocks (McDonagh, 1998, p. 602): (1) Ecological Trust; (ii) Ecological Access; (iii) Ecological Disclosure; and (iv) Ecological Dialogue, as explained in Table 2 SCM.

	McDongh's Sustainable Communication Model (SCM)				
(i)	Ecological Trust (ET) is a two-way process and builds confidence				
	among business leaders and stakeholders leading to "ecological				
	legitimation" (McDonagh, 1998, p. 602).				
(ii)	Ecological Access (EA) refers to "the issues of openness and disclosure				
	of information" (ibid. p. 603). Openness and disclosure of information				
	help build "a real willingness to create and build trust" (ibid. 603).				
(iii)	Ecological Disclosure (EDis) emphasizes the concept that companies				
	which have disclosed the truth about what they do are more likely to be				
	trusted than those organizations where the truth has been found out				
	(McDonagh, 1998; Sturges, 1992). Corporate Environmental Report is a				
	good example for EDis (Elkington, 1998; IISD, 1996).				
(iv)	Ecological Dialogue (EDia) refers to the "ecological dialogue by an				
	organization with its publics on issues of sustainability" (McDonagh,				
	1998, p. 603). EDia needs to be "on-going to help them (i.e. the				
	organization and the publics) understand the issues, making them				
	'ecologically meaningful" (p. 603).				
	Table 2 SCM				

The 4 building principles (ET, EA, EDis & EDia) interactively form the new 'communicative theory for issues of sustainability' (McDonagh, 1998, p. 602).

Fig. 2 PSC illustrates the interaction of McDonagh's (1998) model for sustainable communication.



Integrated CSR Communication Framework

In their study, Pezet & Casalegno (2017) developed an integrated CSR Communication Framework to improve "relations with stakeholders and increase a positive communication" (p. 99) which can also affect financial markets (Salvioni & Bosetti, 2014). CSR communication is "fundamental for creating awareness of corporate initiatives and social, environmental and ethical issues" (Pezet & Casalegno, 2017, p. 99) for achieving credibility (Ricotti, 2003).

Pezet & Casalegno (2017) argue that this framework can compromise different interests, actions, and initiatives among different stakeholders through 3 dimensions. They are Stakeholder Communication (StC), Communities Communication (CoC), and Partners Communication (ParC). Table 3 ICSR summarizes the coverages of StC, CoC and ParC.

Coverages of StC, CoC and ParC (1) Stakeholder Communication (StC) covers "Standard and Norms" (De Colle, et al., 2014) which refers to a firm's reporting activity, in compliance with the law or general convention. StC aims to inform a firm's stakeholders of its initiatives and results of responsibility and sustainability. The deliverance of StC is based on sustainable reports (e.g. Financial Statements & Sustainability Report) on codes of conduct, ethical codes, press communications,

local events, official web pages and internal mail system).

All stakeholders are informed of managerial policies over environment, diversity management, inclusion of protected categories within the business structure, quality standards, ethics, and human rights.

(2) Communities Communication (CoC) covers "Strategic Philanthropy" (Porter & Kramer, 2002) which represents all those activities carried on to satisfy communities' demands and supporting local development projects and social initiatives.

CoC refers to building and feeding relationships with the communities which are in various ways influenced by the firm. The best way to communicate the firm's sincerity is to commit and plan local events, sponsorships, and partnership with local stakeholders (Lambin & Brondoni, 2000). Website content, social media, social reports, press releases and internal mailing system are some useful and helpful tools for CoC.

(3) Partners Communication (ParC) covers "Integrated Outputs" (Casalegno & Civera, 2016) which refers to products, services, processes, and policies, linked to the CSR concept.

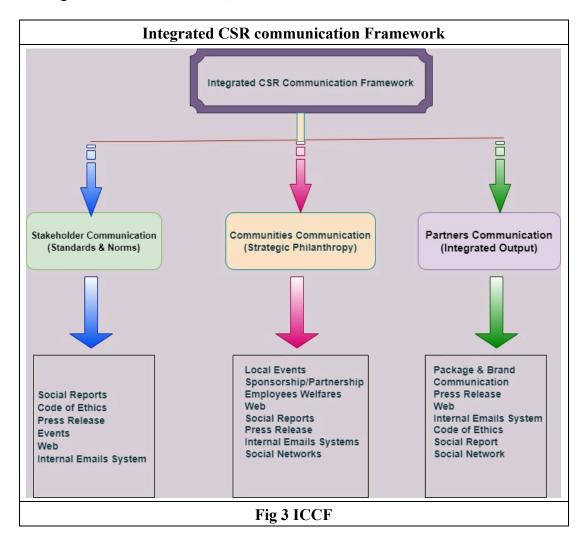
ParC (which includes employees, suppliers, retailers, customers / consumers / users) covers all undertaken actions concerning products (goods or services), implemented processes and policies.

The common topics addressed in ParC cover reduced-impact process in production, use of compostable or biodegradable materials, sustainable policies concerning the supply chain, employee management in terms of welfare and 'internal philanthropy" (Casalegno & Civera, 2016; Nazeer, 2011), and product packaging in terms of if the material can be recycled, compostable or totally biodegradable, signifying the firm's environmental commitment. All these demonstrate the firms' economic, environmental, and social sustainability behavior (Perrini, 2005).

The common tools for ParC are websites, social network pages, sustainability reporting, codes of ethics, financial statements and internal communication platforms.

Table 3 ICSR

Fig. 3 ICCF (Integrated CSR Communication Framework) exhibits the different elements constituting the 3 dimensions of StC, CoC and ParC.



Integrated Communication for Organization Sustainability

Integrated communication is a tool for organizations to keep an open and transparent dialogue with their stakeholders (Bittner-Fesseler & Weicht, 2020; Ina & Serban, 2013; Paliokaite et. al., 2014), striving for "consensus orientation" (Sueldo, 2016, p. 121). Integrated communication is important for realizing organizational communication (Brondoni, 2006; Gnecchi, 2006; Pezet & Casalegno, 2017). It can enable a collaborative understanding, and a long-lasting, equalizing and well-balanced relationship between the different internal and external stakeholders and the organization (Bellini & Brondoni, 2016; Grunig, 2001; Inia & Serban, 2013; Morsing & Schultz, 2006; Siano et. al., 2015).

In their study, Taljaard & de Beer (2019) concluded that integrated communication "has a

distinct relationship with stakeholder engagement, corporate governance ... and the resource perspective of organizations, influencing sustainability" (p. 14). Stakeholder engagement is important in planning the integrated communication (Wheeler & Sillanpaa, 1998).

Candea & Candea (2009) define integrated communication for an organization as the organization's communication which integrates the communication activities with the organization's relevant stakeholders, with a central aim of developing the organization's sustainability perspectives and includes the theme of sustainability in all its activities and messages.

Ina & Serban (2013) argue that integrated communication can help the success of sustainability communication because of its focus on organizations' internal and external stakeholders with feedbacks and mutual interactions through transparent, trustworthy and clear messages (Gronstedt, 2000), and its intentional encouragement of these organizations to be more concerned with maintaining a permanent bond between themselves and their stakeholders (Brugha & Varvasovszky, 2000; Schmeer, 2010). In their studies, Sueldo (2016) and others (Brondoni, 2006; Brugha & Varvasovszky, 2000; De Colle & Gonella, 2003; Gnecchi, 2006; Pezet & Casalegno , 2017; Inia & Serban, 2013) identified and emphasized the crucial importance of integrated communication as a strategy for establishing, nurturing and maintaining "long term and strong relationships with stakeholders" (Pezet & Casalegno, 2017, p. 96).

Possible Success Factors for Integrated Sustainability Communication (ISC)

In reviewing literature on corporate & organizational sustainability communication, nine possible success factors have been identified:

- (1) Transparency of organizational activities with the use of sustainability reporting (Inia & Serban, 2013; Perri, 2005).
- (2) Presence of a transparent and open dialogue between stakeholders and organizations (Frig, 2021; Hajer, 2995; Lueneburger & Goleman, 2011; Yang et al., 2010).
- (3) Presence of stakeholder analysis to improve the communication and relation between stakeholders and organizations (Brugha & Varvasovky, 2000).
- (4) Consistency of outgoing internal and external messages (DuPlessis & Schoonaad, 2006; Maple et. al., 2015; Mihai, 2017).
- (5) Communication contents and processes being interactive (Morsing & Schutz, 2006) and aligned with organizations' strategy, practice(s) and vision(s) on sustainability (DuPlessis & Schoonaad, 2006; Kataria et. al., 2013; Moser, 2010).
- (6) Presence of communication focus on bringing of trust, understanding, support and lasting partnerships with internal stakeholders (employees) and external stakeholders (clients, suppliers, shareholders and other organizations in relationships and business connection) (Freeman et al., 2010; Laplume et al., 2008) despite their different interests (Lambin, 2009).

- (7) All stakeholders being considered equally important to organizations (Freeman et. al., 2010; Inia & Serban, 2013; Taljaard & de Beer, 2019).
- (8) Striving for "consensus orientation" (Sueldo, 2016, p. 121) with maximum reduction on environmental, economic and societal impact (Sanchez-Planelles et al., 2021).
- (9) Alignment of communication messages with organizations' sustainability strategy based on understanding of sustainability (Bittner-Fesseler & Weicht, 2020).

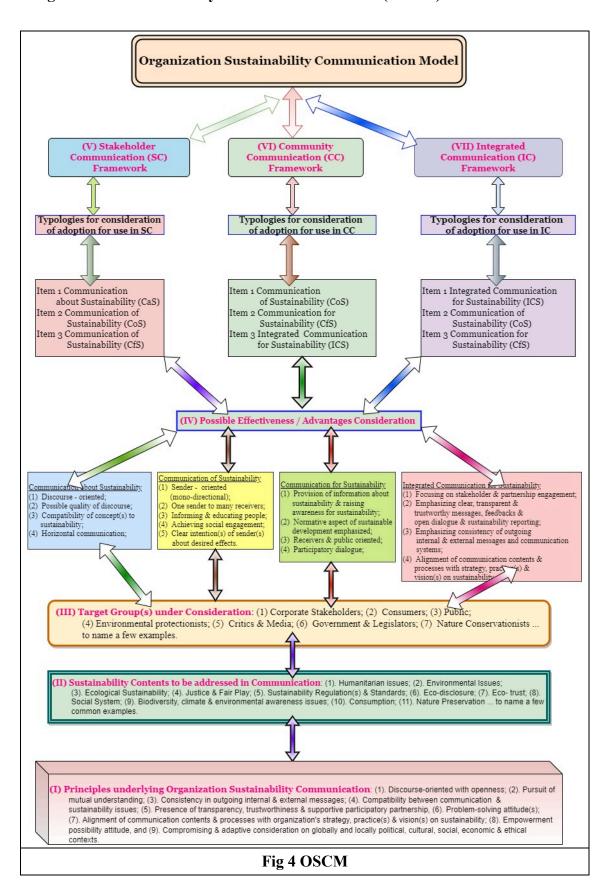
Suggestive guideline for selecting the appropriate communication typology for use

Referencing to the literature review conducted and ISC, a brief summarizing review on the format of communication, and measure of effectiveness for the 4 typologies of communication (CaS, CoS, CfS & ICS) (See Table 4 TGCM) has been elaborated. It serves as a quick reference guide to selecting the appropriate communication typology for use in an organization and a guiding direction for the development of an organization sustainability communication model in this paper.

Table Guiding the Selection Decision on Communication Mode for Use					
Typology	Format of	Measure of Effectiveness			
	Communication				
Communication about	Deliberative	(i) Discourse oriented			
Sustainability (CaS)	Horizontal	(ii) Quality of discourse			
	Many to many	(iii) Compatibility of concepts to			
		sustainability			
Communication of	Transmissive	(i)Sender-oriented			
Sustainability (CoS)	Sender-receiver	(ii) Achievement of sender's			
	One to many	communication objective(s)			
Communication for	Educating students or the	(i)Students & public oriented			
Sustainability (CfS)	public	(ii) Quality of the education			
	Participatory dialogues	(iii) Degree of participation			
Integrated	Addressing internal &	(i)Interaction between organization &			
Communication for	external stakeholders	stakeholders through clear,			
Sustainability (ICS)	Corporate governance	transparent & trustworthy messages			
	focusing on	& feedbacks, open dialogue(s) &			

	stakeholder-engagement	sustainability reporting		
		(ii) Presence of stakeholder analysis		
		for improving interactive relationship		
		(iii) Consistency of outgoing internal		
		& external messages		
		(iv) Alignment of communication		
		contents & processes with		
		organization's strategy, practice(s) &		
		vision(s) on sustainability		
		(v) Presence of mutual trust,		
		understanding, support & lasting		
		partnership between organizations &		
		stakeholders		
Table 4 TGCM				

Organization Sustainability Communication Model (OSCM)



The OSCM model building process (Fig 1 MBP) was used to collect, observe, compare, associate, and categorize data into components with essential elements identified to constitute an organization sustainability communication model (Fig 4 OSCM). In Fig 4 seven constituent components, listed below, are identified as (I) – (VII).

- Principles underlying corporate sustainability communication
- Sustainability contents to be addressed
- Target group(s) under consideration
- Possible effectiveness / advantages consideration
- Stakeholder Communication (SC) Framework
- Community Communication (CC) Framework
- Integrated Communication (IC) Framework

All these components are interchangeably interactive, as indicated by the arrows in Fig 4, to trace back and forth to identify the best approach / approaches for designing and developing the OSC for use.

The OSCM is essentially composed of 3 Corporate Sustainability Communication Frameworks, numbered (V) – (VII) in Fig 4 OSCM.

The four typologies for deciding on the adoption of the most appropriate Organization Sustainability Communication Framework (OSCF) to use are shown in the blue, yellow, green, and pink boxes (See Fig 4 OSCM).

Components (I), Principles underlying OSC, provides 9 principles that forms the fundamental backbone and a reflexivity consideration of success factors for "self-referentiality" (Ziemann, 2011, p. 93) in the formation and development of OSC.

Components (II), (III), and (IV) give guidelines for the organization communicator(s) / management to design sustainability communication and decide on the best typology / typologies (CaS, CoS, CfS and / or ICS) to be adopted for use in one of the sustainability communication frameworks (i.e. SC, CC & IC). The aim of these components is to enable organization communicator(s) / management to "develop the competences" to "adequately interpret the often contradictory ... information available" and realize sustainability communication in the face of "complex societal challenges" (AdomBent & Godemann, 2011, p. 27).

Contribution to Higher Education

There has been "a growing awareness in national and international policies of the need to integrate sustainability" into higher education (HE) (Djordjevic & Cotton, 2011, p. 381). Higher Education Institutes (HEIs) play "a key role in building more sustainable societies" (Katiliute et. al., 2014, p. 106).

In their studies, Flip & Georgescu (2019) and others (Cotton et. al., 2009; Hoover & Harder, 2014; Lozano, 2018; Nicholls et al., 2013; SEAG, 2020; Wilhelm, 2012) have acknowledged the important role played by higher education institutes (HEIs) in advocating the integration of sustainability into HE and their curricula. Universities need to become "sustainability leaders and change drivers" and to ensure that "the needs of present and future generations be understood" (Lozano et al., 2013, p.10) "to meet industry's needs" (Nicholls et al., 2013, p.

138). In this context and given the recent business failures, financial crises, and damaging economies around the world (Lee et al., 2013; Nicholls et al., 2013; Nicolaides, 2006), students in higher education can be prepared with sufficient "sustainability education ... to gain knowledge of sustainability concepts" (SEGA, 2020, p. 8) to improve and minimize "business impacts on society" (Lange, 2013, p. 112).

However, "many universities are still lagging behind companies in helping societies become more sustainable" (Lozano et al., 2013, p. 10). Nonetheless, in their study, Djordjevic & Cotton (2011) have found that encountering the difficulty of "communicating ... about sustainability successfully" (p. 381) is common in HE.

The study of Djordjevic & Cotton (2011) indicated that "lacking of an agreed definition or shared understanding of sustainability", "individual differences in values and attitudes" (p. 381) and lacking of "open dialogue" (p. 392) are major factors hindering the success of sustainability communication in HE. "The view of sustainability ... is an unclear and shifting issues for some universities" (de Lange, 2013, p. 106).

In her study, de Lange (2013) concluded that as "producers of knowledge industry" (p. 104) HEIs needs to have effective sustainability communication for success in adopting sustainability into HE and their curricula.

The investigations of Djordjevic & Cotton (2011), Franz-Balsen & Heinrichs (2007) and Lozano et. al. (2018) concluded that effective organization communication is a key for moving universities towards becoming sustainable HEIs. Effective communication is integral to successful sustainability (Cornelissen, 2008; Corner & Hawthorn, 1993; Karatzoglou, 2012; Lozano, 2018; Siano et al., 2013; Taljarrd & de Beer, 2019).

OSCM is of value to HEIs. Given the complexity of sustainability in HE (Hoover & Harder, 2014), OSCM serves as a referential guide and a tool for HEIs to manage their sustainability communication to meet "sustainability challenges" (Katiliute et. al., 2014, p. 106) and to remove the "confusion about sustainability" (de Lange, 2013, p. 104). With guidelines and open dialogue as recommended in OSCM (See Fig. 4), HEIs can have a direction about how to proceed and succeed in sustainability communication, and be "more likely to become sustainability advocates ... and leaders in the global movement towards a sustainable economy" (Wilhelm, 2012, p. 58).

Conclusion

Considering the increasing importance of organization communication on sustainability (Ziemann, 2011), developing an organization communication model with a theoretical foundation that would help organizations to design and execute sustainability communication is felt to be necessary (AdomBent & Godemann, 2011). This paper has developed one such Organization Sustainability Communication Model for consideration by different organizations when deciding on how to approach sustainability communication.

OSCM can be taken as a referential "stimuli to encourage a change" (Siano et al., 2013, p.16) in the perception, designing and management of organization communication based on a set of seven components as set out in Fig 4 OSCM. Using OSCM organization sustainability practitioners / management will be equipped with "a set of technical skills" (ibid. p. 16) better to manage their sustainability communication.

Further Research Agendas

The study in this paper has focused on the explorative and descriptive theory building process to develop an organization sustainability communication model (shown in Fig 4 OSCM). Further investigation is needed to improve this theoretical model through testing and practical implementation in organizations to validate its workability. Such investigations would need fully to consider other variables affecting OSC, such as industry type and firm size. Further investigations would also need to be conducted in different countries to validate its generalizability.

The following issues require to be examined in further studies to refine the feasibility of OSCM.

- (1) In view of financial and manpower constraints, can stakeholder analysis be conducted in small sized organizations and HEIs?
- (2) What managerial stance in the adoption of OSCM should be taken by small sized organizations and HEIs given considerations of financial budgeting?
- (3) What are the ideal principles for resolving conflicts arising from different interests in sustainability?
- (4) What are the necessary abilities and traits needed by the organization communicators to provide effective sustainability communication?
- (5) What are the barriers that would possibly hinder the realization and development of organization sustainability communication?
- (6) What is the ideal organizational infrastructure needed for OSC to take place successfully?

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