# How Do Enterprises Communicate Their Innovation Strategies? An Assessment and Comparison of Turkish Firms' Website Statements

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Innovation strategy practices primarily aim to sustain competitive advantage and growth via new business models and added value. The goal of this study is to discover the extent of innovation statements communicated to stakeholders by Turkish firms listed in the second top 500 industrial enterprises ranking of Istanbul Chamber of Industry as of 2013 and 2014. To do this, topics closely related to innovation are examined via a comparative analysis of related website contents. The study includes four main parts. The first and second parts review the literature and theoretical background. The third part introduces the methodological framework of the paper including the profile of the firms under consideration and analytical procedures. Content analysis is used to group web-based information related to innovation and other notions. Groups include mission, vision and values, research and development ability, and innovation related topics which statement densities are discussed in the context of motivation for value creation. It has been deduced that the gradual increase in firms' innovation awareness is also communicated to stakeholders especially in research and the context of development activities. Finally this paper ends with a conclusion.

Keywords: Innovation, research and development, stakeholder, value

JEL Classification: M10

# 1. Introduction

Regarding the increasing popularity of innovation in Turkey, firms' perception towards this notion is one of the riveting topics. One step further, when it is assumed that the way firms communicate various activities related to innovation with both inside and outside stakeholders, content of provided messages can be considered as additional indicators of firms' innovation-based value creation characteristics. Here, the way firms transmit related messages may also underline firms' approach to their stakeholders.

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Firms may display their identities and activities via their corporate websites, which may also contain different functions. Besides the most basic dissemination of information, the function of websites also facilitates firms' support functions, where; websites are used for communicating with outside stakeholders. This notion underlines the perception of a "website" for this study, beginning by a literature search including two groups of studies regarding the role of websites in the context of firms and the notion of stakeholder.

When we judge that the Internet can be used as a communication tool in between the firm and its "widely approached" stakeholders, approached in-depth in the following section, the research question then becomes as follows: assuming that firms are willing to create value for their stakeholders in a broad concept, to what extent do they communicate their innovation related strategies or activities on their websites in Turkey? Here, it should also be underlined that according the literature searched, websites can be used for multiple purposes and websites are freely accessible all stakeholders so they can get the information they require.

In the study, to discover the extent of the messages, content analysis is used to group web-based information related to innovation, research and development (R&D) and other notions. The analysis section includes six content groups and 25 attributes of innovation and creativity statements of 307 and 329 firms for years 2013 and 2014 respectively. Content group categories first include general statements along with mission, vision and values, R&D ability, and innovation related topics. Attributes under these categories vary from technology usage to implementation and practices, innovation monitoring, R&D competences in detail, human resources policies, design, new product development (NPD), collaboration; quality policy and so on. In the data collection process, each link in a firm's web-site and its contents are investigated with respect to statements on firm's innovation-related strategies. In the main text, the term "firm" is used instead of "enterprise".

#### 2. Literature Review

The first group of literature we mention is related to the various functions of websites for communication purposes in general, and the second group of studies involves the websites' interaction with the notion of innovation, as content. Regarding this group of studies, the role of e-communication in banking services is discussed by (Kirakosyan and Dănăiață, 2014, pp. 361-370) in their studies. Researchers have assessed that, besides various online channels, websites are pointed out as tools for communicating with customers.

Websites are greatly used for marketing purposes. Tools such as search engines on websites as proposed by Laric and Lynagh, (2008, pp. 361-366) for internet usage in industrial promotional strategies (Deeter-Schmelz and Kennedy, 2002 pp.145-154), site contents for the convenience of online retailers (Haynes and Taylor, 2006 pp. 145-154) targeting stakeholders (Chang, 2009, p.327) and marketing communications in general (Perry and Budkin, 2002, pp.133-144). In the same context websites can also serve additional communication implications such as the cosmetics industry (Ahn et al., 2013, pp.97-113).

Website communication can also be perceived for communication sustainability purposes in order to clout consumer perceptions (Dach and Allmendinger, 2013, pp. 409-418) and the communication of values and practices in the same context (Ki and Shin, 2015, pp. 36-43) Likewise, corporate identity can be discussed in a website's contents (e.g. Law and Verville, 2011 pp.17-32) website trust issues including online purchase decision making (Chien et al., 2013 pp. 6-20, Yoon, 2002, p.47) perceived credibility (Ong, 2011, p.207) or online communication contributions for open innovation processes in a design process context (Paulini et al., 2012, pp.90-112). Regarding strategic communication, Fisher and Arnold (2003, pp. 45-55)' assessed company websites in order deduce the functions that a website has to fulfil in order to serve strategic goals. In a similar context, Pan and Xu's (2009, p.251-253) research reveals insights into the cultural characteristics of websites in different countries. Social media channels have also become popular tools as part of a firm's communication strategy. In this context, Da Silva et al. (2013, pp. 676-695)' reveals an intensive presence of the sample companies in selected social networks; whereas, websites can also be used to collect idea for innovation purposes from customers via social media applications as expressed by Martini et al. (2013, pp.198-213).

The second group of research literature mainly involves websites' function in the context of innovativeness in various areas. For example, the adoption of interactivity related innovation on corporate websites is investigated by Zollet and Back (2014, p.2-19). The researchers deduced drivers that serve innovativeness as complexity, perceived benefits, top management support, and information intensity. In the context of human resources management, and innovative approaches for online recruiting, Bermúdez-Edo et al, (2010, pp.177-189)' results revealed that the corporate website perception of users for job acceptance

mainly depends on dimensions such as ability, integrity and benevolence. In the same framework, Peng et al. (2010, pp.160-164) reveal the factors that influence creativity and the website's implications in this context. For e-government services, the capability of website architecture to provide innovative services is investigated by Cheng et al. (2012, p.54-71). In the same background, Wen and Cheng's (2007, pp.2799-2806) research proposes a framework for analyzing interactions in two dimensions: being system and customer. It should also be noted that Suciu and Petrescu-Prahova (2011, pp 16-20) underline the relationship between innovation and some of the attributes considered in this study, especially in the context of organizational assessment of innovation.

Considering the fact that value creation is an intangible notion, third group of studies focus on different dimensions of value creation in the sense of stakeholder perception are assessed. Basically, stakeholder theory focuses on the instrumental role of a firm's values and squabbles, and that value creation occurs when there is accordance between stakeholders on which values are substantial (Kraaijenbrink, 2012). Two meanings are of value creation are introduced in Argandoña's (2011) research. The first meaning of value is related to extrinsic results, where, the firm creates something economic or non-economic as a result of stakeholder relationship. Secondly, value can be intrinsic such as psychological satisfaction, which is especially valid for employees at a first glance. When economic outcome is emphasized, a company's market power is stated as one of the values in accordance and degree of competition as one of the influencing factors. In particular, competitive advantage is a way to maximize profits and also requires proper stakeholder management. In this framework; it can also be intuited that as the number of stakeholders evolve, the scope of the values that are subject to be agreed upon widens and that a company should not only provide economic value for its stakeholders but also other types of values.

According to Freeman (2001, p.144)', there are two approaches a stakeholder. A narrow-definition mainly involves the stakeholder groups who are vital for an organization's survival and its achievement of goals whereas wide-definition includes any group or individual who can influence or be influenced by the organization. When these two notions are imagined as "approaches" it can be inferred that a wide stakeholder approach with a proper stakeholder management may ease to create more value.

The importance of management in this stakeholder is underlined by (Harrison and Wicks, 2013, p.98) as follows:

"Rather than focusing primarily on economic measures of performance, a stakeholder-based performance measure challenges managers to examine more broadly the value their firms are creating from the perspective of the stakeholders who are involved in creating it. Thus, it gives managers the information they need to engage stakeholders where they are and enhance managerial ability to use such insights to create more value"

An important finding regarding the role of communication for informing stakeholders is underlined by Freeman et al., (2010, p.3-343) in the context of accounting. Here the Internet is regarded as significant in providing stakeholder dialogue on the way to environmental governance and accountability, along with research literature that assesses the Internet's role as a communication tool with stakeholders.

#### 3. Research Methodology

#### 3.1. Research Context

Content analysis was used as a methodology (Berelson, 1952, Krippendorff, 1980). This helped to reveal perceptual attributes of website content outcomes from the actions of firms towards a group of attributes.

Content analysis was used to convert web site content into content categories by following systematic rules of coding. It quantifies and analyses the presence, meanings and relationships of words and concepts related with mission, vision and values statements along with additional groups such as "innovation related topics" and "R&D".

In other words, this methodology is selected because it counts the word frequency of concepts in the websites to reflect important groups of information and lists topics for website outcomes. Then, similar topics are combined together and labeled as attributes of website outcomes.

## 3.2. Data Collection and Sample

To observe the variations in the content groups, research sample consists of firms of the second largest 500 industrial enterprises ranking of list of the İstanbul Chamber of Industry for years 2013 and 2014 (ICI, 2015; 2016). The ranking criterion is based on the ratio of sales to production. For both years, firms from different domains, including textile, food, automotive, construction, metal, pharmaceutical, energy, chemical

industries and so on, appear in the list. In 2014, 95 new firms are included in the ranking. Dispersion of firm responses by statement category basis (which is later called as "content group") is displayed in Tables 1 and 2.

**Table 1.** Number of firms responding with innovation related statements under each category in 2013

Statement Category	Number of responding firms
General Statements	134
Mission	37
Vision	31
Corporate Values	57
R&D	119
Innovation Related Topics	136

The most popular innovation statements of over 307 firms can be observed under the categories "innovation related" and "general statements" for 2013. A similar picture is also valid for 2014, where the number of firms under consideration is 329.

Table 2. Number of firms responding with innovation related statements under each category in 2014

Statement Category	Number of responding firms
General Statements	170
Mission	43
Vision	31
Corporate Values	50
R&D	129
Innovation Related Topics	150

# 4. Analysis and Results

In this section, six content groups and 25 attributes of innovation and creativity statements are displayed in Tables 3 and 4. Here, there are six content groups, but primarily general statements, which provide an overview of a firm. There are also statements on mission, vision, corporate values, R&D and innovation related topics that constitute content groups where attributes vary in a wide array from innovation tracking to policies on human resources.

*Table 3.* Frequency table of innovation strategies reflected in firm websites for year 2013

<b>Content Groups</b>	Attributes on Innovation Strategies	Number of	%
		Firms	
General Statements	Innovativeness /innovative products / methods / vision / brands as		
	approaches	89	66,4
	Follow-up innovativeness/innovative technologies and creative		
	ideas in the market	12	8,9
	Undertaking R&D activities	65	48,5
	Innovativeness/innovative structures, technology tracking/or		
Mission	solutions	26	70,2
MISSIOII	Involvement in D &D majests		
	Involvement in R&D projects	8	21,6
	Creativity, research, development and entrepreneurship	6	19,3
Vision	Innovativeness/ Tracking/ Continuous/ Approach/ Innovative		
	approach/ Innovative Products	27	87
	Entrepreneurship	2	3,5
Corporate Values	R&D intention as a value	3	5,2
	Promotion of innovativeness and innovative ideas	43	75,4
	Promotion of creativity/creative solutions	10	17,5
R&D	Patent activities	5	4,2
	Existence of R&D dept/team/labs	55	46,2
	NPD capability	38	31,9
	Innovation as an integral part of R&D policy	14	11,7
	R&D center possession	9	7,5

	Existence of R&D page	30	25,2
	University/Industry collaboration	14	11,7
	Design activities	53	44,5
Innovation Related Topics	Existence of innovation page	11	8
	R&D as an integral part of quality policy	13	9,5
	Innovation as an integral part of quality policy	38	27,9
	Innovation/creativity as an integral part of HR policy	55	40,4
	Document/Information sharing tools	16	11,7
	Existence of training activities	7	5,1

Table 4. Frequency table of innovation strategies reflected in firm websites for year 2014

<b>Content Groups</b>	Attributes on Innovation Strategies	Number of Firms	%
General Statements	Innovativeness /innovative products / methods / vision / brands as		
	approaches	113	66,4
	Follow-up innovativeness/innovative technologies and creative		
	ideas in the market	17	10
	Undertaking R&D activities	77	45,2
	Innovativeness/innovative structures, technology tracking and/or		
Mission	solutions	38	88,3
IVIISSIOII	Involvement in R&D projects	5	11,6
	Creativity, research, development and entrepreneurship	9	29
Vision	Innovativeness/ Tracking/ Continuous/ Approach/ Innovative		
	approach/ Innovative Products	25	80,6
	Entrepreneurship	4	8
Corporate	R&D intention as a value	1	2
Values	Promotion of innovativeness and innovative ideas	45	90
	Promotion of creativity / creative solutions	8	16
	Patent activities	10	7,7
	Existence of R&D dept/team/labs	54	41,8
R&D	NPD capability	42	32,5
	Innovation as an integral part of R&D policy	22	17
	R&D center possession	15	11,6
	Existence of R&D page	55	42,6
	University/Industry collaboration	20	15,5
	Design activities	60	46,5
	Existence of innovation page	20	13,3
Innovation Related Topics	R&D as an integral part of quality policy	8	5,3
	Innovation as an integral part of quality policy	41	27,3
	Innovation/creativity as an integral part of HR policy	83	55,3
	Document/Information sharing tools	26	17,3
	Existence of training activities	14	9,3

Since there are some similarities in the attributes shown in both tables; we can distinguish these in Tables 3 and 4 under two headings: approaches and processes. In approaches, firms' tendencies for innovation can be overviewed; whereas in processes, innovative approaches embedded in a firm's operations (e.g. R&D, NPD, design or training etc.) can be observed in a focal way. Therefore, mission, vision and values can be comprised under approaches and the remaining content groups under "processes".

# A-Approaches

## **General Statements**

In general statements, it can be observed that firms are willing to embed innovative approaches in their activities (66,4%), which remains constant for both years, and also prefer to focus upon R&D activities. Considering the fact that general statements also provide an opinion on a firm's stance, more than half of the firms in the sample do have a tendency to innovate, and less than half of them prefer to support similar approaches with R&D activities.

#### Mission and Vision

Since a firm's mission and vision are closely related and the number of respondents is almost similar, these two notions are considered together.

In comparison with general statements, a majority of the firms include "innovativeness" in their mission, and therefore in their official goals (70,2%) with an increasing trend in 2014 (88,3%). With regard to general statements, it can also be observed that R&D Project involvement still does not hold an important place in firm's missions. A similar situation is also visible in vision statements; where; innovative approaches are popular (87% and 80,6% respectively); however firms do not consider R&D related processes at a similar level in their visions.

#### Values

Promotion of innovative ideas is the most frequent statement within firm values with a gradual increase from 75,4% to 90%. It is not supported by creativity or R&D activities at the same level.

Therefore, firms' awareness of innovation as a main policy guideline is more likely than processes such as creative thinking and R&D related ones, which support firm-based innovative capabilities. This leads to the question of the importance of R&D activities themselves, and which are discussed next.

#### **B-Processes**

# **Research and Development**

At first glance, it can be observed that firms mostly emphasize possessing R&D labs or departments at almost same levels (46,2% and 41,8% for 2013 and 2014 respectively) along with design activities (44,5% and 46,5% for both years). The dramatic increase in the number of R&D pages (from 25,2% to 42,6%) can be assumed as an indicator of the emphasis on R&D activities. Another popular statement is related to NPD capability (31,9% and 32,5% for 2013 and 2014 respectively. The reasons for this are discussed in the next section.

### **Innovation Related Topics**

The firms underline the significance of HR policies for creativity, and also show innovativeness at an increasing level (40,4% in 2013, 55,3% in 2014). This is followed by attributes related to innovation-based quality policies, which remained at the same level for both years. The remaining attributes show increasing trends in general terms, especially innovation pages as website content, and document sharing opportunities on websites.

#### 5. Discussion and Conclusion

#### 5.1. Discussion

To assess the results stated above, the first thing to bear in mind is that firms increasingly consider innovative approaches as a mission rather than a visionary topic. It should also be underlined that since the attributes under the headings "mission and vision" are similar, this can be intuited that a wide array of innovation-related topics have become a target for firms to achieve. This can be imagined as a positive factor in considering the innovation awareness of firm' and how this aspect is evolving is communicated. It can also be observed that this shift in approaches also penetrates corporate values in the form of promoting innovative ideas, increasing by almost 14,9% since 2013. Therefore, firms not only regard embedding innovation in their culture but also emphasize creativity to facilitate innovation in operations.

Regarding the "processes" content groups, the most important variations in context of R&D, here, R&D pages have become more popular, R&D centre establishments tend to increase, along with collaboration with outside stakeholders such as universities in the form of different projects.

Mostly reflected in the web pages of the firms from the textile industry, the topic of design activities remained almost stable between 2013 and 2014. In contrast with this, NPD has become one of the most popular activities. Recalling the interconnectedness between a firm's NPD capability and innovativeness, improvement of NPD capability may again be estimated as an aspect that would create value on a firm's operations in the same framework.

Moreover, it should also be expected that HR policies that involve a search for creative human capital, along with related staff promotion policies could be viewed as a support for fostering firm-based innovation capabilities. Similar to R&D related content groups, regarding the role of human factor in innovative

competences, a gradual increase in related HR policies can be estimated can be thought of as a positive communication.

Finally, quality-innovation interaction remained for the most part; constant for both years. This means that firms' perception of innovation-based quality is one of the notions that are subject to further improvement.

In light of the findings stated above, it can be deduced that firms mostly prefer communicating their value creation activities by bringing R&D competences to the forefront (mostly "processes").

Here, regarding the fact that densities of R&D activities are important indicators of a firm's innovativeness, messages of economic value creation are indirectly transmitted to stakeholders with positive creativity gains supported by R&D activities that are expected to furnish new knowledge for firms. Likewise, among "approaches" vision can be considered as a significant message transmitter.

Based on the notions stated above, one of the possible motivators of the promising position of the innovation stated above is an improvement in recent government policies implemented in Turkey, mainly promoting firm-based innovative activities. An important topic on the policy agenda is the motivation of collaborative activities between firms and universities (and/or- research institutions) in the form of joint projects on different subjects, including; entrepreneurship or engineering activities. Others include, establishment of incubators and science parks nearby universities in order to provide a location advantage, particularly for start-ups. Firms may also undertake independent projects by collaborating with universities in their own networks. An increase in similar collaborations may also be assumed as indicators of a cultural shift that brings firms and research institution closer to each other.

As a result, considering the fact that websites content provides different messages for a wide array of stakeholders, it can be deduced that the firms under review use their websites in order to disseminate messages of value creation, mainly economic ones. It should also be noted that messages are essentially perceived to be managerial.

#### 5.2. Conclusion

This study has assessed a number of firm websites to observe innovativeness related to messages, while message contents were also compared for a period of two years. It has been deduced that firms are keen to embed innovative practices in their operations in a way to create economic value and also messages that primarily focus on what R&D activities have taken place. In addition, innovative processes are supported by creativity promoting HR policies, collaborations and related structures of corporate culture. It can be observed that firms are keen to communicate innovative messages through a wide stakeholder approach. One contribution of this study is that it provides a holistic approach in the manners in which to observe firms' innovation awareness and communication potential.

The main constraint of this study is due to different industries of the firms under consideration, as stakeholder profiles, expectations, market conditions and firm reactions, may cause differences in the innovation perceptions of the firms (e.g. some industries may be more technology intensive or nature dependent in terms of the procurement of raw materials). In-depth interviews to be conducted with various firm managers constitute an area of further research in order to discover processes of value creation processes in by industry type, and a comparison of the differences among industries in this context.

#### References

- Ahn, H.Y., Wu, L. and Taylor, R., 2013. Communication strategies in cosmetic surgery websites: An application of Taylor's six segment message strategy wheel. *Health Marketing Quarterly*, 30, pp.97–113.
- Argandoña, A., 2011. *Stakeholder theory and value creation*. [online] Available at: http://www.iese.edu/research/pdfs/di-0922-e.pdf/ [Accessed on 21 May 2016].
- Berelson, B., 1952. Content analysis in communication research. New York: Hoffner Publishing Co.
- Bermúdez Edo, M., Hurtado-Torres, N. and Aragón-Correa, J.A., 2010. The importance of trusting beliefs linked to the corporate website for diffusion of recruiting-related online innovations. *Information Technology Management*, 11, pp.177-189.
- Chang, Y., 2009. An exploration of the standardization of targeting strategies and the use of promotional disciplines on the web: A cross-national study. *Journal of Marketing Communications*, 15, pp.327-343.

- Cheng, L.H., Wen, C.T., Li, E.Y. and Lin, T.Y., 2012. Service innovation activities in e-government initiatives: the Taiwan experience. *International. Journal of Services Technology and Management*, 17, pp.54-71.
- Chien, S.H., Chen, Y.H. and Wu, J.J., 2013 Building Online transaction trust through a two-step flow of information communication. *Journal of Global Information Technology Management*, 16, pp.6-20.
- Dach, L. and Allmendinger, K., 2014. Sustainability in corporate communications and its influence on consumer awareness and perceptions: A study of H&M and Primark, *Procedia Social and Behavioral Sciences*, 130, pp.409-418.
- Da Silva, J.P, Arratibel, A.G., Aierdi, K.M. Galdospín, T.M. Castillo, I.M., Mardaras, L.I., González, M.R. and Santamarina, D.R., 2013. Companies on Facebook and Twitter. Current situation and communication strategies. *Revista Latina de Comunicación Social*, pp.676-695.
- Deeter-Schmelz, D.R. and Kennedy, K., 2002. An exploratory study of the Internet as an industrial communication tool examining buyers' perceptions. *Industrial Marketing Management*, 31, pp.145-154.
- Fisher, C.M. and Arnold, K., 2003. Is your business website effective?. *Journal of Promotion Management*, 9, pp. 45-55.
- Freeman, R.E., 2001. Stakeholder Theory of the Modern Corporation, *Perspectives in Business Ethics Sie*, Volume 3, p. 144.
- Freeman, R.E., Harrison, J.S., Wicks, A.C., Parmar, B.L. and De Colle, S., 2010. *Stakeholder Theory The State of Art*. Cambridge: Cambridge University Press.
- Harrison, J.S. and Wicks, A.C., 2013. *Stakeholder theory, value and firm performance*. [online] Available at: http://centres.insead.edu/social-innovation/what-we-do/documents/stakehodertheory.pdf/ [Accessed on 29 May 2016].
- Haynes, P.J. and Taylor, V.A., 2006. An examination of strategic practices in online retailing. *Journal of Internet Commerce*, 5, pp.1-26.
- Ho-Young, A., Wu, L. and Taylor, R.E., 2013. Communication strategies in cosmetic surgery websites: An application of Taylor's Six-Segment Message Strategy Wheel. *Health Marketing Quarterly*, 30, pp.97–113.
- ICI, 2016. Second largest 500 industry enterprises 2014 list. [online] Available at: http://www.iso.org.tr/sites/1/content/500-ikinci-buyuk-liste-2014.html/ [Accessed on 5 March 2016].
- ICI, 2015. Second largest 500 industry enterprises 2013 list. [online] Available at: http://www.iso.org.tr/projeler/turkiyenin-500-buyuk-sanayi-kurulusu/[Accessed on 7 July 2015].
- Ki, E.J., and Shin, S., 2013. Organization sustainability communication (OSC): Similarities and differences of OSC messages in the United States and South Korea. *Computers in Human Behavior*, 48, pp.36-43.
- Kirakosyan, K. and Dănăiață, D., 2013. Communication management in electronic banking. Better communication for better relationship. *Procedia Social and Behavioral Sciences*, 124, pp. 361-370.
- Krippendorff, K., 1980. Content analysis: An introduction to its methodology. Beverly Hills: Sage.
- Kraaijenbrink, J., 2012. A value oriented view of strategy. [online] Available at: http://kraaijenbrink.com/wp-content/uploads/2012/06/A-value-oriented-view-of-strategy-Kraaijenbrink-15-04-011.pdf/[Accessed on 26 May 2016].
- Laric, M.V. and Lynagh, P.M., 2008. Internet marketing and customer relationships management: A two step communication strategy, in *Northeast Decision Sciences Institute Proceedings March 28-30 2008*, pp. 361-366.
- Law, S. and Verville, J., 2011. Human roles and communication strategies of corporate identity performance: Enhancing global image, leadership, and legacy of a high-tech leader. *Academy of Marketing Studies Journal*, Special Issue, 15, pp. 17-32.
- Martini, A., Massa, S. and Testa, S., 2013. The firm, the platform and the customer: A "double mangle" interpretation of social media for innovation. *Information and Organization*, 23, pp.198-213.
- Ong, B.S., 2011. Online shoppers' perceptions and use of comparison-shopping sites: An exploratory study. *Journal of Promotion Management*, 17, pp. 207–227.
- Pan, P.L. and XU, J., 2009. Online strategic communication: A cross-cultural analysis of U.S. and Chinese corporate websites. *Public Relations Review*, 35, pp.251-253.
- Paulini, M., Murty, P. and Maher, M.L., 2013. Design processes in collective innovation communities: a study of communication. *CoDesign*, 9, pp. 90–112.
- Perry, M.P. and Bodkin, C.D., 2002. Fortune 500 manufacturer web sites Innovative marketing strategies or cyberbrochures?. *Industrial Marketing Management*, 31, pp. 133-144.

- Peng, K.L., Lin, M.C. and Baum, T., 2010. Service innovation in hospitality human resource management website Service concept of searching creative chef in 2010 Second International Conference on Computer Modeling and Simulation, pp.160-164.
- Suciu, A. and Petrescu-Prahova, M., 2011. Social Networks as a change management strategy for performance excellence and innovation. *The Journal for Quality and Participation*, pp.16-20.
- Yoon, S.J., 2002. The antecedents and consequences of trust in on-line purchase decisions. *Journal of Interactive Marketing*, 16, pp. 47-63.
- Wen, J. and Cheng, L., 2007. Innovation in e-Government initiatives: New website service interfaces and market creation The Taiwan experience in *PICMET 2007 Proceedings*, 5-9 August 2007, Portland, Oregon, pp.2799-2806.
- Zollet, R. and Back, A., 2015. Critical factors influencing diffusion of interactivity innovations on corporate websites. IEEE *Transactions on Professional Communication*, 58, pp.2-19.

