

The Influence of Inter-Stakeholders' Communication on University – Industry Collaboration

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ABSTRACT

Purpose: *The aim of this study is to examine the influence of inter-stakeholders' communication on universities which mutually collaborate with both internal and external stakeholders in frame of university – industry collaboration (UIC) and coordinate their internal structure in this direction.*

Design/methodology/approach: *In this study, literature review and theoretical approach were applied to find out the interrelationships of four basic theories (i.e. Communicative Actions Theory, Media Richness Theory, Actor-Networks Theory, and Stakeholder Theory) that are located amongst inter-stakeholders communication and UIC.*

Findings: *There is a strong nexus between stakeholder theory and other mentioned three theories. Stakeholder theory has a magnet role in combining UIC and inter-stakeholders' communication. Communicative actions theory, media richness theory and actor-networks theory have supportive and transformative effects on stakeholder theory to uphold the relationships at multivariate levels, actors and institutions.*

Research limitations/implications: *The research was limited to the communication dimension of stakeholders and UIC. There are many other dimensions; such as, reciprocal trust, commitment, continuity and understanding. Investigators are encouraged to improve a reliable and valid scale and test these factors in an empirical way.*

Practical implications: *The paper includes implications for the development of the position of managers in communicative activities in which universities build interactions with their stakeholders and create an open system that is a strategic point.*

Originality/value: *The original contribution of this study is to attach considerable attention to university interfaces (e.g. UIC Centre, Technocity / Technopark, Technology Transfer Office, Incubation Centre) and the managers working in these institutions have very crucial functions to establish cooperation amongst university and industry, and contain multidimensional and multidisciplinary aspects of collaboration and communication.*

Keywords: Inter-Stakeholders' Communication, UIC Interfaces, Communicative Actions Theory, Media Richness Theory, Actor-Networks Theory, Stakeholder Theory

1. INTRODUCTION

Universities mainly contribute to the development of societies in terms of social and cultural fields; and recently, they have set up alliances with stakeholders. In this manner, the units of an organisation must ensure appropriate communication for achieving common aims and goals. The quality of communication that people create amongst each other for gaining organisation's aims is to some extent directly proportional to the organisation's achievement. In particular, the managers who undertake the task of ensuring better communication quality in crowded organisations are expected to be sensitive towards this issue.

University – Industry relationships have a long history. Today, there continue to be compelling reasons for industrial corporations and universities to work together. In particular, university – industry interactions generally encompass four major interrelated components: research support, cooperative research, knowledge transfer, and technology transfer. Research support is the least interactive of these components since research support embodies financial and equipment contributions made to universities by industry. Cooperative research relationships are more interactive than research support and include contract research with individual investigators, consulting by faculty, and certain group arrangements specifically for addressing immediate industry problems. Knowledge transfer encompasses a much broader array of highly interactive activities that include on-going formal and informal personal interactions, cooperative education, curriculum development, and personnel exchanges. Compared to knowledge transfer the focus technology transfer is on addressing immediate and more specific industry issues by leveraging university driven research with industry expertise and parlaying these complementary contributions into commercialised technologies needed by the marketplace (Santoro and Chakrabarti, 2002).

Various interfaces in UIC have very crucial roles and these ensure effective communication between stakeholders (Aliu, Özkan and Aliu, 2016). How can one describe university – industry interface? A good description could be that university – industry interface is characterised by the interactive and collaborative programme between academic institutions and industrial sector for the attainment of certain reciprocally beneficial aims and missions (Nangia and Pramanik, 2011, p. 21).

All parts which have effective role in university – industry interaction are called as stakeholders. Concerning with stakeholder notion, Freeman (1984) put forward that a stakeholder is a person or a group that has an influence on attaining an organisation's objectives. This person or group can also be affected by the process of achieving an organisation's goals. In this study, communicative actions that occur amongst stakeholders were elaborated from the viewpoint of organisational communication.

Organisational communication follows up the pattern that flows from “structure” to “context” and then from “context” to “process.” From this perspective, organisations produce a certain communicative context in terms of structure (Jensen, 2003). There are plenty ways one can describe or categorise organisational communication. Deetz (2001) defines three of the most commonly used conceptualisations for organisational communication: as a (1) specific subset within the communication discipline; (2) specific “phenomenon that exists in organisations”; or (3) particular way of clarifying organisations and organisational processes (Remke, 2013, p. 33). It can be claimed that the structure of organisations are changed over time and renewed in terms of their “context.” However, it is worth noting that a communicative transformation which can occur in any situation ought to be managed properly during this process.

As a necessity of being an open system, organisations must constantly communicate and interact with stakeholders. Organisations need to inform their environment for better managing interactions with stakeholders and they shall control and lead these interactions in frame of their organisational goals. An organisation needs to have a function to provide information which will strengthen the formation of perceptions by establishing precise and intelligible communication in relation to both organisation and stakeholders to fulfil its functions that are relevant to organisational management (Tutar, 2009, pp. 309-310).

In this context, practitioners' selection of strategies related to management and development of institutional change within stakeholder network depends on the following points; i) personal perceptions regarding change; ii) initiative demonstrated during change process; iii) consistency with organisation's targets; v) obstacles and potential difficulties they perceive in connection with the efforts to establish change. These factors are quite substantial for examining the nexus between organisational communication and stakeholder approach (Lewis, 2007, p. 182; Christensen and Cornelissen, 2011).

2. LITERATURE REVIEW

In this study, the usefulness of multimedia opportunities within inter-stakeholders collaborations and interactions has an important role for measuring communicative actions and relationships amongst university and industry. The theoretical framework of this investigation was supported with the concepts of "Communicative Action Theory", "Media-Richness Theory", "Actor-Network Theory" and "Stakeholder Theory."

The concept of interface has been expanded in practice to also encompass the meeting point between organisations. The interface creates a meeting point between organisations. It is created when people, organisations, or systems meet in support of one another (Wren, 1967, p. 71). In this framework, the organisational efficiency of UIC interfaces were emphasised by means of presenting various theoretical viewpoints.

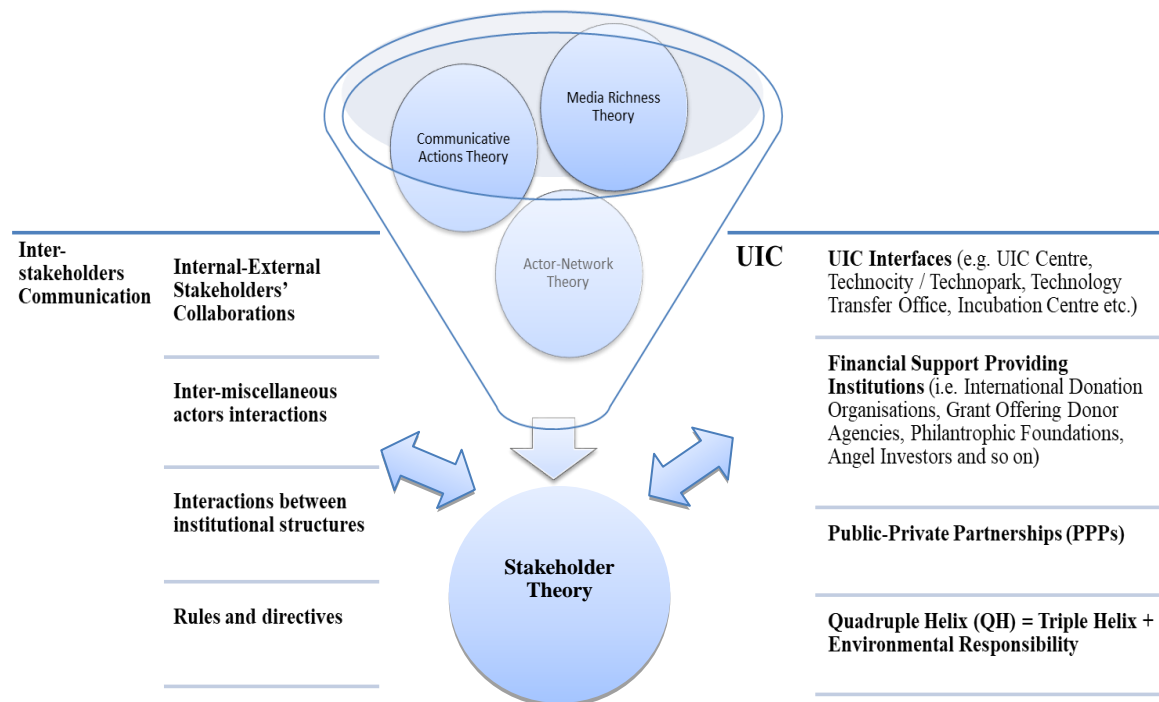


Figure 1: The theoretical framework of research

In Figure 1, the theoretical framework of research illustrates that there is a significant relationship amongst *stakeholder theory* and other three theories that namely are *communicative actions theory*, *media richness theory* and *actor-networks theory*. Stakeholder theory has a catalyst role in an amalgamation process of combining UIC and inter-stakeholders' communication. Other basic theories have supportive and transformative effects on stakeholder theory to uphold the relationships at multivariate levels, actors and institutions.

2.1 Communicative actions theory

Habermas (1990) examined labour, family, media and language interactions and theory – practice understanding in the theory of communicative action. In this context, Habermas classified social actions as instrumental, symbolic, communicative and strategic actions (Aliu, 2012; Habermas, 1979, p. 40). When the focus is particularly given to inter-stakeholder interaction in UIC, communicative actions and strategic actions have a striking importance.

Habermas describes communicative action as ‘oriented to reaching understanding’, whereas strategic action as ‘oriented to the actor’s success’ (Habermas, 1990). He defined that ‘communicative action is oriented to observing intersubjectively valid norms that link reciprocal expectations (recognition).’ In communicative action, the validity basis of speech is presupposed. The universal validity claims which participants at least implicitly raise and reciprocally recognise, make possible the consensus that carries action in common. Whereas, according to Habermas, this background consensus is lacking in strategic action. Strategic action remains indifferent with respect to its motivational conditions, whereas the consensual presuppositions of communicative action can secure motivations. Thus, strategic actions must be institutionalised, that is embedding in intersubjectively binding norms that guarantee the fulfilment of the motivational conditions (Aliu, 2012; Habermas, 1979, p. 118).

For a theory of communicative action merely those analytic theories of meaning are instructive. The theory of communicative action starts from the structure of linguistic expressions rather than from speakers’ intentions. Likewise, the theory has to keep in view the problem of how the actions of several actors are linked to one another by means of the mechanism of reaching understanding. The meaning of sentences, and the understanding of sentence meanings, cannot be separated from language’s inherent relation to the validity of statements. Speakers and hearers understand the meaning of a sentence when they know under what conditions it is true (Habermas, 1984, pp. 275-276).

In light of these clarifications, the theoretical claims and assertions of Habermas associated with the distinctions amongst communicative action and strategic action enable to conceive inter-stakeholders and inter-actors relations in UIC much better and comprehensively. It is argued that the actions and operations carried out by actors or units of an organisation within the framework of organisational communication are “success oriented” and sometimes are also “oriented to reaching understanding.” This point is quite crucial because what is mutually valid for both sides of UIC is that this cooperation can actually gain more functionality when this mechanism starts producing optimum solutions to the fundamental issues of society. In the “understanding – oriented” perspective, a particular attention is given to moral consciousness, ethical values and reciprocal benefits; whereas, in “success – oriented” perspective, there is a concentration to individual interests, unilateral benefits and professional development.

In this context, it is important to denote that the actors who take responsibility in UIC vary to what extent they perceive the common aims and targets of both sides and reflect these on communicative platforms. Especially, UIC interface managers who undertake a catalyst role reflect the interactions with internal stakeholders that consist of academicians and researchers. On the other side, their communication that is established with the company managers and entrepreneurs outside the university constitutes and leads to collaborations with external stakeholders. Universities offer a common ground for both sides in frame of the characteristics and opportunities of these bridging institutions. UIC interface managers ought to manage and balance “understanding – oriented” and “success – oriented” perspectives reflected by university and industry representatives who are basically a part of two different cultures.

2.2 Media – richness theory

According to a general remark, managers as successful communicators are good at sending their messages and can use various options in any way they want during their communication process. Many managers do not understand the relationship between a communication medium and communication effectiveness. A medium can enhance or distort the intended message, and the explosion in electronic technology is making media selection an even more critical issue. Each channel of communication – be it written, telephone,

face-to-face, or electronic – has characteristics that make it appropriate in some situations and not in others (Lengel and Daft, 1989, p. 225).

Media – richness theory reveals different communication media used in an organisation (e.g. telephone, e-mail, notes etc.); various information richness levels (e.g. quantity of shared data) and the richness level that affects perception of communication (Daft and Lengel, 1986; Lengel and Daft, 1989; Saunders and Jones, 1990; Dennis and Kinney, 1998; Byrne and LeMay, 2006).

Why do organisations process information? The literature on organisation theory thus suggests two answers to reduce uncertainty and equivocality. Greater immediacy of feedback and greater multiplicity of cues increases media richness, and the use of richer media rather than leaner media will lead to better task performance for high rather than low equivocality tasks. There are five primary task-related factors that may affect performance: equivocality, uncertainty, routineness, complexity, and emotional content. One implication for managers is that a major problem is lack of clarity, not lack of data. Bridging wide differences across departments is a problem of equivocality reduction. People come to a problem with different experience, cognitive elements, goals, values, and priorities. A person trained as a scientist may have a difficult time to conceive the viewpoint of a lawyer. A common perspective does not exist. Coding schemes are dissimilar. Interdepartmental communications thus can be complex, ambiguous and difficult to interpret (Daft and Lengel, 1986; Dennis and Kinney, 1998).

In cases where there is a low interdependence in interdepartmental collaborations, the diversity is high; therefore, in this case the use of rich media tools (e.g. face-to-face interviews, telephone interviews, personal notes, plans and so on) is recommended for resolving differences and using small amount of information. In cases where there is a high interdependence in interdepartmental collaborations, the diversity is high; thus, in this case the use of rich media tools is recommended as well as more information is needed to remove interdependence (e.g. teams, matrix organisation structure, individual works and projects etc.) (Daft and Lengel, 1986).

In frame of media selection, each communication situation creates demand richness depending on whether it is routine or not. Effective communication is an adaptation process; in this respect, the richness of environment ought to be selected to fit in the nature of message. Communication success will occur when rich media are used for non-routine messages and when lean media are used for routine messages. Communication failures occur when a rich medium is used to convey routine messages or when a lean medium is chosen for non-routine messages (Lengel and Daft, 1989).

Information acquisition and transmission in organisational decision making is an important and timely issue (Saunders and Jones, 1990). Saunders and Jones quoted media richness approach and interlinked the media attributes approach and media selection in a dynamic model. In this model, it was asserted that media selection needs to be seen as a whole of an event that takes place beyond resources (inside and outside of an organisation) and various media (face-to face [un]planned interview, telephone interview, e-mail, electronic conference, official document submission) used throughout decision-making process.

Dennis and Kinney (1998) stated that managers could improve performance by matching media characteristics to the needs of organisational information processing tasks. The theory asserted that four factors influenced this media richness: the ability of the medium to transmit multiple cues (e.g., vocal inflection, gestures), immediacy of feedback, language variety, and the personal focus of the medium. (1) That greater immediacy of feedback and greater multiplicity of cues increases media richness, and (2) that the use of richer media rather than leaner media will lead to better task performance for high rather than low equivocality tasks.”

With businesses increasing their reliance on video and audio conferencing, and on computer-mediated communication (e.g., email, websites) for faster and more efficient communication, it is critical that we understand the impact that these media have on perceptions of quality of communication and perceived satisfaction in the information (Byrne and LeMay, 2006, p. 150).

In line with above clarifications, the necessity of using different media tools has been increased both in communication with external stakeholders (i.e. collaboration with company managers) and communication between actors in universities (i.e. cooperation amongst the units) within the scope of UIC. In particular, computer –mediated communication is very much preferable because of being faster than other media tools. Overlapping of the multiplicity of media tools with the capabilities of people who use them is a desirable thing. In this scope, UIC interface managers ought to be careful in selecting and using media tools; and they need to use these communication tools more effectively to enhance the quality of organisational communication and enrich collaboration level between interfaces and their stakeholders.

2.3 Actor – network theory

Actor – network theory (ANT) was developed in the early 1980s as a contribution to the sociology of knowledge. In a major collection of papers in this field, it is argued that Foucault’s conception of power, formulated as “power/knowledge” – the idea that power and knowledge are indissociably from one another – is crucial to recent sociology of knowledge. Thus, in management science, Foucault’s thinking is consistent with “learning-in-working” similarly unites knowledge (learning) and power (working). Foucault and ANT are concerned with how any actor, however large or abstract (e.g. organisation, state, class, patriarchy) comes to be and function like an actor (Fox, 2000, pp. 857-858).

The appeal of ANT to the organisation studies community has resulted in a growing body of studies that use the theory to understand phenomena as diverse as professionalism, technology, information technology implementation, anomalies, consultancy, communities of practice, organisational safety, knowledge management, innovation, economic markets, corporate greening, academic communities, power and organising in general. Whilst this body of work is by no means homogenous, and various readings of the theory exist within organisation studies and elsewhere, the explosion of ANT inspired studies makes it both timely and fitting to reassess the contribution of the theory to the study of organisation (Whittle and Spicer, 2008, p. 613).

Organisations, according to ANT, are understood as networks of heterogeneous actors – social, technical, textual, naturally occurring etc. – brought together into more or less stable associations or alliances. The term “actor” can therefore be used to refer to a person, a plant, a machine, a weather system or a germ. The theory’s commitment to “radical symmetry” involves viewing the power of humans and non-humans as equally uncertain, ambiguous and disputable. No agential priority is accorded to the institutional, conceptual, natural or material. A machine can therefore be thought of as having, in principle, the same degree of agency as a person (Whittle and Spicer, 2008, pp. 611-612).

The influence of the ANT on the stakeholder approach in management science explains how various groups of stakeholders are organised, expanded, and most importantly how they interact with each other behave as a whole body in a network. In ANT, stakeholder groups are expanding and moving by connecting together like the rings of a chain (Fox, 2000; Latour, 2005; Law, 1992). ANT has been used by organisation scholars to trace how the production of scientific truth in organisation studies is conditioned by the actor networks in which it is produced. The popularity of ANT within organisation studies is testimony to its network-extending effects (Whittle and Spicer, 2008, p. 619).

2.4 Stakeholder theory and UIC

Stakeholder approach stresses the importance of paying attention to relationships that involve core values and principles. Hence, stakeholder approach allows managers to share their personal values when they formulate and implement their strategic plans. A typical instance of this is the concept of business strategy (Freeman, 2004, p. 234). The network created by stakeholders shall be considered as a cluster of actors engaged in an extensive innovation system and consists of governments, firms, democratic mass organisations, universities, research institutions and so on (Kiper, 2004, p. 73).

The most fundamental task of a theory of stakeholder management is to establish what constitutes a stake. The first step in establishing what constitutes a stake is offering a description of the notion. The concepts of stake and stakeholder can be used in different ways (e.g. descriptively, instrumentally, and normatively) (Donaldson and Preston, 1995).

A descriptive use of the concepts of stake and stakeholder might be based upon the empirical relationship between the activity of the firm and an affected party (e.g., a stakeholder as someone who is directly affected by the activity of the firm), while an instrumental description of the notion may involve the potential effects of an actor on the corporation (e.g., a stakeholder as someone who is able to affect the activity of the corporation) (Freeman, 1984).

In normative stakeholder management theory, a stake is not merely an interest (either on the part of actors internal to the firm or other affected parties) and does not imply only prudential obligations. Rather, stakes are understood to impose normative obligations. For this reason, a normative theory of stakeholder management requires a description of stake and stakeholder that makes explicit the source of their normative force. It is on this basis that a stake can be described as “an interest for which a valid normative claim can be advanced” (Reed, 1999, p. 467).

While much of the attention in the literature has been directed towards a firm’s management of its stakeholders, some scholars have focused specifically on the influence stakeholders have on the firm and its strategies. More recent literature recognises how the influence of external stakeholders on a firm’s strategies has dramatically increased (Freeman *et al.*, 2010).

Siegel *et al.* (2003) stated that “stakeholders include university scientists and administrators, industry scientists, R&D managers in large companies, and entrepreneurs (p. 113).” In UICs where more than one actor is involved, university as both influencing and affected factor takes place amongst public sector and private sector. Rather than being subordinated to either industry or government, the university is emerging as an influential actor and equal partner in a “triple helix” of university-industry-government relations (Etzkowitz, 2003).

Collaboration provides companies with the means by which to advance technologically, at lower cost and with less inherent risk. Collaboration also provides access to a greater breadth and depth of knowledge and technologies than would normally be possible through internal development. For universities, the benefits include additional public and private funding, and increasingly, licensing and patenting income, as a result of technology transfer activities (Barnes, Pashby and Gibbons, 2002, p. 272).

Consortia to develop new technologies may include corporate R&D units, university centres and government laboratories. Nevertheless, it is likely that in the future the traditional distinctions between public and private will break down, whilst the knowledge system itself grows in complexity and becomes much more difficult to manage. Increasing complexity also leads to the emergence of a new layer of consortia managers and “interface specialists” often located in the non-profit sector (Etzkowitz *et al.*, 2000, p. 327; Santoro and Chakrabarti, 2002).

3. CONCLUSION

In a complex and information-rich society, the key to organisational excellence is effective communication. Organisational excellence stems from the dedicated commitment of people, people who are motivated to work together and who share similar values and visions about the results of their efforts (Shokley-Zalabak, 2006, p. 4).

In recent years, various arguments have been developed on inter-stakeholders communication in UIC. UIC interfaces are trying to bring together both scientific communities in university and industry / business communities in a common platform by taking into account cultural structures, economic interests, social dialogue and technological improvements. At this point, managers of these interfaces have strategic roles for managing inter-stakeholders communication and carrying out various activities and operations. On the one side, interface managers manage communication between institutions and units within university. On

the other side, they concentrate on communication with external stakeholders. In this scope, interface managers in an increasing “communication traffic” use multimedia tools and its environment to be more specific and manage time more sufficiently and optimally. In this manner, they can find the right conduit for transmitting corporate messages. Furthermore, the common platforms provided by interfaces (e.g. UIC research centres, technoparks, technology transfer offices) enable stakeholders to act more productively and efficiently through faster communication abilities.

In particular, interfaces established within university lead actor-networks in which miscellaneous stakeholders work together with these interfaces and enhance relationships with each other. In this kind of diversity, undoubtedly, it is precise that the successful management of human capital, technology and systems in “triple helix” is likely to cause of multiple effects on economic, social and cultural development. The equitable sharings of all development can merely take place with efficient communicative actions.

UIC is likely to be considered as an indicator for public policy and academia relationship because industry stakeholders are generally encouraged by government bodies and many incentive programs are successfully implemented to strengthen the effects of public policies on academia (Aliu *et al.*, 2017, p. 10).

Consequently, the issue of university –industry collaboration was examined with reference to specific theories; such as, the theory of communicative action, media – richness theory, actor – network theory and stakeholder theory. Especially, the priority for communicative actions and inter-stakeholders communication was emphasised to underline the fact that UIC interface managers need to keep in mind these theories and priorities whilst they are realising their mediator roles and tasks. For future studies, it is recommended that researchers ought to conduct investigations and do analyses based on quantitative data and illustrate the attitudes and perceptions of key actors and stakeholders who are most active in UIC.

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REFERENCES

- [1] Aliu, A. 2012. International Migration and the European Union Relations in the Context of a Comparison of Western Balkans and North African Countries: Controlling Migration and Hybrid Model. *MPRA Paper No. 41102*. available at: <http://www.ssoar.info/ssoar/handle/document/36796>
- [2] Aliu, D., Özkan, Ö. and Aliu, A. 2016. The impact of organizational communication in the establishment of stakeholders relationship and university-industry collaboration. *2nd International Congress on Economics and Business: New Economic Trends and Business Opportunities*. Sarajevo, Bosnia and Herzegovina, pp. 1060-1071.
- [3] Aliu, D, Akatay, A., Aliu, A. and Eroglu, U. 2017. Public policy influences on academia in the european union: A snapshot of the convergences among HRM – industrial relations and CSR – stakeholder approach. *Journal of Workplace Rights (Sage Open)*, 7(1), 1-15.
- [4] Barnes, T., Pashby, I. and Gibbons, A. 2002. Effective university-industry interaction: A multi-case evaluation of collaborative R&D projects. *European Management Journal*. 20(3), 227-285.
- [5] Bruneel, J., D’Este, P. and Salter, A. 2010. Investigating the factors that diminish the barriers to university–industry collaboration. *Research Policy*, 39(7), 858-868.
- [6] Byrne, Z. S. and LeMay, E. 2006. Different media for organizational communication: Perceptions of quality and satisfaction. *Journal of Business and Psychology*, 21(2), 149-173.
- [7] Carayol, N. 2003. Objectives, agreements and matching in science-industry collaborations: Reassembling the pieces of the puzzle. *Research Policy*, 32(6), 887-908.
- [8] Christensen, L. T. and Cornelissen, J. 2011. Bridging corporate and organizational communication: Review, development and a look to the future. *Management Communication Quarterly*, 25(3), 383-414.
- [9] Daft, R. L. and Lengel, R. H. 1986. Organizational information requirements, media richness and structural design. *Management Science*, 32(5), 554-571.

- [10] Dennis, A. R. and Kinney, S. T. 1998. Testing media richness theory in the new media: The effects of cues, feedback, and task equivocality. *Information Systems Research*, 9(3), 256-274.
- [11] Donaldson, T. and Preston, L. E. 1995. The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of Management Review*, 20(1), 65-91.
- [12] Etzkowitz, H., Webster, A., Gebhardt, C. and Terra, B. R. C. 2000. The future of the university and the university of the future: Evolution of ivory tower to entrepreneurial paradigm. *Research Policy*, 29(2), 313-330.
- [13] Etzkowitz, H. 2003. Innovation in innovation: The triple helix of university-industry-government relations. *Social Science Information*, 42(3), 293-337.
- [14] Fox, S. 2000. Communities of practice, foucault and actor-network theory. *Journal of Management Studies*, 32(6), 853-867.
- [15] Freeman, E. R. 1984. *Strategic Management: A Stakeholder Approach*. Boston: Pitman.
- [16] Freeman, E. R. 2004. The stakeholder approach revisited. *Zeitschrift für Wirtschafts-und Unternehmensethik*, 5(3), 228-241.
- [17] Freeman, E. R., Harrison, J. S., Wicks, A. C., Parmar, B. L. and Colle, S. D. 2010. *Stakeholder Theory: The State of the Art*. Cambridge: Cambridge University Press.
- [18] Habermas, J. 1979. *Communication and the Evolution of Society*. London: Heinemann.
- [19] Habermas, J. 1984. *The Theory of Communicative Action-Vol. 1: Reason and the Rationalization of Society*. Boston: Beacon Press.
- [20] Habermas, J. 1990. *Moral Consciousness and Communicative Action*. Cambridge: Polity Press.
- [21] Jensen, T. M. 2003. Organizational communication: A review, research and development report. available at: <http://www.agderforskning.no/wp-content/uploads/2015/12/Organizational.pdf>
- [22] Kiper, M. 2004. *Teknoloji Transfer Mekanizmaları ve Bu Kapsamda Üniversite-Sanayi İşbirliği*. Ankara: Türk Mühendis ve Mimar Odaları Birliği Yayınları.
- [23] Latour, B. 2005. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.
- [24] Law, J. 1992. Notes on the theory of the actor-network: Ordering, strategy, and heterogeneity. *Systems Practice*, 5(4), 379-393.
- [25] Lengel, R. H. and Daft, R. L. 1989. The selection of communication media as an executive skill. *Academy of Management Executive*, 2(3), 225-232.
- [26] Lewis, L. K. 2007. An organizational stakeholder model of change implementation communication. *Communication Theory*, 17(2), 176-204.
- [27] Nangia, V. K. and Pramanik, C. 2011. Towards an integrated model for academia- industry interface in india. *World Academy of Science, Engineering and Technology*, 5(1), 280-289.
- [28] Reed, D. 1999. Stakeholder management theory: A critical theory perspective. *Business Ethics Quarterly*, 9(3), 453-483.
- [29] Remke, R. 2013. Corporate reputation and the discipline of organizational communication. In: C. E. Carroll (Ed.), *The Handbook of Communication and Corporate Reputation* (pp. 30-39). Oxford: John Wiley & Sons, Inc.
- [30] Santoro, M. D. and Chakrabarti, A. K. 2002. Firm size and technology centrality in industry-university interactions. *Research Policy*, 31(7), 1163-1180.
- [31] Saunders, C and Jones, J. W. 1990. Temporal sequences in information acquisition for decision making: A focus on source and medium. *Academy of Management Review*, 15(1), 29-46.
- [32] Siegel, D. S., Waldman, D. A., Atwater, L. E. & Link, A. N. 2003. Commercial knowledge transfers from universities to firms: Improving the effectiveness of university-industry collaboration. *The Journal of High Technology Management Research*, 14(1), 111-133.
- [33] Shockley-Zalabak, P. 2015. *Fundamentals of Organizational Communication: Knowledge, Sensitivity, Skills, Values*. New Jersey: Pearson.
- [34] Tutar, H. 2009. *Örgütsel İletişim*. Ankara: Seckin Yayınları.
- [35] Whittle, A. and Spicer, A. 2008. Is actor network theory critique? *Organization Studies*, 29(4), 611-629.
- [36] Wren, D. A. 1967. Interface and interorganizational coordination. *Academy of Management Journal*.