An Examination of the Effects of Self-Regulatory Focus on the Perception of the Media Richness: The Case of Email

Communication is a key element in organizations' business success. The Media Richness Theory and the Channel Expansion Theory are two of the most influential theories regarding the selection and use of communication media in organizations; however, literature has focused little on the effects of self-regulation by managers and employees in these theories. To analyze these topics, this study develops an empirical investigation by gathering data from 600 managers and employees using a questionnaire. The results suggest that the perception of media richness is positively affected when the individual shows a promotion focus or strategy.

Keywords: organizational communication, media richness, channel expansion theory, regulatory focus theory

1. Introduction

Communication is a key element in explaining an organization's business successes.

Executives and managers attribute such improvements in performance and business goals both to specific aspects concerning product quality and service and to the performance and structure of their communication networks. Communication improves the competitiveness of an organization; eases the adaptation to the changing environment; facilitates the achievement of set objectives and goals; satisfies its own needs and those of its participants; coordinates and controls activities; and fosters motivation, commitment, responsibility, involvement and participation of personnel as well as creating a positive working environment. Due to these factors, organizational communication has become a priority for researchers and business managers. Therefore, this study exercises great care in understanding the reasons why managers and employees in an organization use certain communication media, such as email.

2. Literature Review

The current technological revolution is largely driven by significant advances in information technology and communication technologies. It is virtually impossible to imagine an organization without technology-driven communication tools (Rice and Gattiker, 2001). Therefore, communication technologies are a vital tool for effective communication in today's organizational life. Effective internal communication is a prerequisite for organizational success (Ruck and Welch, 2012). It is common to assert that investment in communication technologies has potential positive effects on the transformation of organizations (Mahmood, 1993) and society (Carlaw, 2007). Because the selection and use of media is a core issue in organizational communication, intense research has been undertaken to explain how they have been used and what effects they

have on organizational effectiveness.

2.1 Evolution and revision of theories on media selection and use

Three theoretical approaches can be identified in the literature on media-related choices in organizations (Katz and Rice, 2002; Minsky and Marin, 1999): contingency theories, subjectivist theories and situational theories.

Contingency theories consider the communication medium and the task for which the sender wants to communicate to be the main determinants in the choice of a communication medium (van den Hooff et al., 2005). Among all contingency theories, Media Richness Theory (Daft and Lengel, 1984, Daft and Lengel, 1986) is the most popular, and it proposes that the intrinsic characteristics of a medium define its suitability to meet the information requirements of a given task. More specifically, Daft and Legel (1984, 1986) define the media richness as a function of the following characteristics: the ability to handle multiple information cues simultaneously; the ability to facilitate rapid feedback; the ability to establish a personal focus; and the ability to utilize natural language.

The second approach refers to subjectivist theories, which highlight the importance of social context in the process of choosing a medium. Subjectivist theories suggest that tasks are largely subjective and determined by the social context of the user, contradicting some basic premises of the theory of social influence argued by authors such as Fulk et al. (1987) and Markus (1987; 1990). Finally, the third approach refers to situational theories that emphasize the importance of a number of specific characteristics of the media itself, the user experience and experience in the perception of those characteristics (van den Hooff et al., 2005; Otondo et al., 2008). These authors consider user experience to be a person's behaviors, attitudes, and emotions regarding

the use of a specific communication medium, as well as other contextual elements that impact the communication process (e.g., the organizational culture).

Carlson and Zmud (1999) suggest a new perspective where the importance of user experience determines the perception of media richness. This new theory (Channel Expansion Theory) argues that the perceived richness of a communication media by individuals depends heavily on the characteristics of the medium (as the Media Richness Theory suggests) and their experiences with this medium (as some situational theories propose). Likewise, this approach also proposes that social influence is an important determinant of perceived media richness (as some subjectivist theories suggest). Their results and extensive research (e.g., Timmerman and Madhavapeddi, 2008) suggest that the choice of a media by organizational members is based partially on these factors.

Communication is also influenced by characteristics of the work environment such as the degree of openness to communication between employees and supervisors and the degree of trust in the information disseminated by the organization (Guzley 1992). Individuals' behavior is a key determinant of the effectiveness of communication processes in organizations. Listening, persuading, teaching, learning, presenting, collaborating and coordinating are essential skills in organizational communication (Davenport et al., 2001). Some behavioral theories, such as regulatory focus theory, predict that individuals behave and perceive their environment differently depending on their attitudes or skills.

Regulatory focus theory (Higgins, 1997; Higgins, 1998) aims to explain the behavior and motivation of individuals through their regulatory focus. The regulatory focus is basically the way in which someone approaches pleasure but avoids pain.

Higgins (1997) asserts that "the critical characteristic of such self-regulation is its

approach motivation, the attempt to reduce discrepancies between current states and desired end-states". A promotion and prevention focus reflects different motivational states. Individuals with a promotion focus will see themselves working toward achieving their ideals, whereas those with a prevention focus will try to meet their obligations and minimize errors (Meyer et al., 2004). Motivational states associated with either a promotion focus or a prevention focus may act to force or realign behaviors. A recent study revealed that a coach with a promotion focus had a more positive effect on the performance of the coaching recipients than a coach with a prevention focus (Sue-Chan et al., 2012).

Indeed, Higgins (1998) argued that individuals with a strong prevention focus try to meet the minimum requirements, whereas those with a promotion focus try to achieve the highest level of compliance. In addition, previous research shows that a high promotion focus is associated with higher levels of creativity (Friedman and Forster, 2001; Lam and Chiu, 2002). Although stable differences exist between holders of both approaches when determining objectives and activities (see: Shah and Higgins, 1997; Higgins et al. 2001), regulatory forces may be temporarily induced according to contextual demands (see: Freitas and Higgins, 2002; Liberman et al., 2001; Shah and Higgins, 2001). Therefore, both prevention and promotion focuses can be considered to be two determinants of different outcomes in the use of communication media in organizations.

3. Conceptual model

Channel expansion theory posits that an individual's perceived media richness depends on five elements: (1) the inherent characteristics of the medium of communication, (2) the experience of the sender with the medium, (3) the experience of the sender with the receiver of the message (or, as usually defined, the communication partner), (4) the

experience of the sender with the subject of the message, and (5) the experience of the sender with the organizational context in which the communication occurs. Likewise, Schmitz and Fulk (1991) propose that social influence is an important determinant of perceived media richness.

Open statements regarding the characteristics of the media or tasks by colleagues, supervisors, or other individuals in the work environment can also influence the use of a medium. As previously mentioned, social influences in an organization do not always have the same effects on the behavior of individuals. Therefore, we suggest that the influence of a supervisor is different in nature from the influences received from co-workers, and therefore both influences may have different effects on perceived media richness. More specifically, we propose that supervisors can influence the media richness perception held by workers and that co-workers are not able to influence that perception:

- Hypothesis 1: Social influence by supervisors influences the perception of the richness of a communication medium.
- Hypothesis 2: Social influence by peers does not influence the perception of the richness of a communication medium.

According to social influence models of technology use, an individuals' beliefs regarding the appropriate use of a channel and the richness of that channel are partially socially constructed and therefore subject to influence by the individual's environment (Fulk et al., 1990). However, many studies that have analyzed this influence have obtained results contrary to those expected (e.g., Rice, 1993). This divergence in the results of these studies could be explained by regulatory focus theory, which suggests that a promotion focus is related to the progress, growth and achievement (where

objectives are hopes and aspirations) whereas a prevention focus is related to safety and responsibility. Therefore, a relationship between regulatory focus and the perceived richness of a communication medium is expected.

According to this theory, the actions and preferences of individuals in different situations depend on whether they adopt promotion or prevention strategies. Individuals with a promotion focus are people with an attitude that drives them to progress and achieve goals; therefore, they will be more receptive to comments and perceptions expressed within their work environment. The following hypothesis is therefore proposed:

• Hypothesis 3: The adoption of a promotion focus strategy is a determinant of the perceived richness of a communication medium.

The objectives and motivations of individuals with a prevention focus are related to safety and responsibility; therefore, these people are not prone to be influenced by the environment to the extent of changing their beliefs. Therefore, the following hypothesis is proposed:

 Hypothesis 4: An attitude of prevention is not related to the perceived richness of a communication medium.

4. Methodology

To test the hypotheses, an empirical study is conducted with data collected through an online questionnaire answered by a sample of 600 Spanish respondents. All questions were translated and back-translated from English to Spanish by two bilingual authors to avoid language-related errors in the analysis. The sample size allows for reasonable significance in parameter estimation through maximum likelihood and similarly

complies with the minimum ratio needed for structural equation models. To obtain a wide variability in the data obtained, the respondents were segmented into four sets covering all the possible combinations of two dimensions: the frequency of use of the medium (habitual or sporadic) and the frequency of communication with the receiver (habitual or sporadic). The sample was 50% male, with an average age of 34 years and with 95% of the respondents having at least a bachelor's degree. All respondents had been working in their current company for more than two years (the mean was 6 years). All respondents were working in medium or large companies and were mainly managers, engineers, and sales agents.

One of the first decisions during the design of the empirical study was the choice of media. There were different criteria and options, but we finally decided to use email for two reasons. First, most researchers have chosen email as the communication medium in their research, so this choice allowed us to compare our results directly with the majority of studies that have analyzed this topic. Second, email is one of the most used media today, but not everyone uses all the available options.

The measurements used in this investigation include original items from the investigation by Carlson and Zmud (1999) and several complementary items based on the results of Schmitz and Fulk (1991), Walter (1992), and Higgins (1997). The complete survey items were rated on a 5-point scale (1 = strongly disagree, 5 = strongly agree).

4.1 Instrumentation

Perceived media richness: The richness of a communication media is evaluated through two complementary measures. First, we included the four original items proposed by Carlson and Zmud (1999), which refer to each one of the four dimensions of the media richness construct (feedback, multiple cues, natural language, and personal focus).

These items and their adaptations have been the most commonly used over the last decade when evaluating the construct.

Predictors of channel expansion: According to the original theory of channel expansion (Carlson & Zmud, 1999), there are four particularly relevant experiences: experience with the channel, experience with the subject, experience with the communication partner, and experience of the organizational context. The final survey included all the items of the measurements of experience based on knowledge from the study by Hasty et al. (2006), developed from the original measurements by Carlson and Zmud (1999). These variables include six items to evaluate channel experience, three items to evaluate experience with the topic, six items to evaluate experience with the communication partners, and three items to evaluate experience with the organizational context.

Social influence: Schmitz and Fulk (1991) suggest that the influence of colleagues, supervisors, or other individuals in the work environment can affect the behaviors of employees and consequently the use of the media. However, we suggest that the influence of colleagues and supervisors have different effects on employees. For this reason, we adapted the 4 items proposed by Schmitz and Fulk (1991) to two situations: supervisors and peers influences.

Prevention and promotion focus: Ouschan et al. (2007) developed the Regulatory Focus Strategies Scale (RFSS) to measure individual differences in perception regarding the approval of the promotion and prevention strategies. More specifically, these items evaluate the promotion and prevention focus through the frequency with which a set of principles and activities guide the attitude of a person at work. The scale has 12 items, 6 for the promotion focus and 6 for the prevention focus.

Table 1 shows the variables and their statistics (see all variables and their items in Table 3).

[INSERT TABLE 1 HERE]

4.2 Data analysis

Three models were analyzed to test the hypotheses. The first model reproduces research by Carlson and Zmud (1999). In the second model, the social influence construct is divided into two sub-dimensions: social influence by supervisors (ISJ) and social influence by co-workers (ISC). Finally, the third model introduces two dimensions related to self-regulatory focus: PRE, which assesses the level of focus on prevention, and PRO, which measures promotion focus.

Structural equation models incorporate the relationships between observable and latent variables (measurement model) and the hypothesized relationships between latent variables (structural model). The results of this analysis do not definitively establish causality, but they can help reject assumptions that are contradictory to the covariance structure between the observed variables.

The structural model depicted in figure 1 states that the endogenous latent variable medium richness RC ($\eta 1$) is related to the six latent exogenous variables: experience with co-worker PAR ($\xi 1$), experience with the topic TEM ($\xi 2$), experience with the organizational context CTX ($\xi 3$), experience with the medium MED ($\xi 4$), social influence of co-workers (ISC) ($\xi 5$), and social influence of supervisor (ISJ) ($\xi 6$). These six latent variables fail to explain fully the variability of media richness, so the error term $\xi 1$ is included. Regarding the effects of the self-regulated status of the individual, we suggested that the endogenous latent variable Medium Richness RC ($\eta 1$)

is related to two exogenous latent variables, PRE prevention focus (ξ 7) and promotion

focus PRO (ξ8).

[INSERT FIGURE 1 HERE]

5. Results

The first stage of model specification considers the latent variables or dimensions, the relationships among the latent variables, the indicators assigned to each dimension and the covariances between the exogenous variables. The model was estimated through maximum likelihood, which is efficient and unbiased when meeting the assumptions of multivariate normality. We use the AMOS program for fitting the theoretical model to the gathered data. The results revealed a proper fit of the theoretical model: x2=

2025.33(636), CFI=0.923, RMR=0.045, GFI=0.840, RMSEA=0.06.

[INSERT TABLE 2 HERE]

According to the results presented in table 2, the perception of media richness is related to co-worker experience with fellow PAR (0.243, p <0.001), experience with the medium MED (0.138, p <0.05), experience with the topic TEM (0.181; p <0.001), supervisor social influence ISJ (0.208, p <0.001) and promotion focus PRO (0.209, p <0.001). From the model results, we observe that experience with the context CTX (-0.013, p = 0.822), co-workers social influence ISC (0.026, p = 0.658) and prevention focus PRO (-0.004, p = 0.950) do not significantly influence the perception of media richness. In conclusion, we note that the type of self-regulatory focus of the sender of a message has some influence on the perception of the richness of this medium.

6. Discussion

Our results, in combination with previous studies on the topic, indicate that the perception of media richness is influenced by the experience with the communication partner, the experience with the medium, the experience with the topic and the social influence; however, the experience with the context has no significant influence on the perception of media richness. These results are largely consistent with those obtained by Timmerman and Madhavapeddi (2008) and suggest that managers and employees use communication media based partially on these factors.

Regarding social influence, the results show that the statements regarding the characteristics of the media made by supervisors influence some decisions of employees regarding the use of the communication media. Therefore, individuals perceive an increase in media richness from the behavior and comments of supervisors regarding their use is expected. We observe that social influence by supervisors has a positive influence on the perception of media richness (0.238, p<0.01). With these results, we can state that the behavior of supervisors has a clear influence on the construction of individual opinion about how a communication medium is perceived. Meanwhile, coworkers' social influence does not significantly affect the perception of a medium (p=0.652). These results validate hypotheses 1 and 2, and the need to assess two distinct subdimensions of social influence. These results could explain some of the conflicting results in the literature regarding the social influence on the perceived media richness (e.g. Rice, 1993).

Individuals perceive and behave differently when their self-regulated states are different (with focus on promotion and prevention). We can observe this in the motivation of individuals. The results of the model show that the level of promotion focus positively influences the perceived media richness (0.209, p<0.01). We note that individuals with a high promotion focus are people open to the environment and who

richness for any medium. In contrast, individuals with a prevention focus merely attempt to meet their obligations. The results show no significant relationship between prevention focus and perceived media richness (-0.004, p=0.950), thus confirming that individuals tend to protect themselves from disturbances to their environment.

Therefore, individuals with a high prevention focus do not alter their perception of the richness of a medium. These results validate hypotheses 3 and 4 and confirm the need to consider the attitude of individuals as a key element in the assessment of perceived media richness when making decisions. According to the proposals of Fulk et al. (1990), these results suggest that skills and motivations in the behavior of individuals are core elements to consider in the research on perceived media richness and consequently in the use of communication media in organizations.

are characterized by being proactive; this group was expected to perceive a high level of

7. Conclusions

The main objective of this research is to establish evidence for the relationship between the perceived richness of a media and the self-regulatory state of managers and employees of an organization. To achieve this goal, we developed a questionnaire based primarily on the literature on the use of media, specifically email, and self-regulatory states of the employees of an organization. From the results of previous investigations that show the fit between theories to be based on the construct media richness and their use in most communication media, we suggest extrapolating the results of this research to other media. The results show the existence of such a relationship; however, this relationship between perceived richness and self-regulatory state is partial. In situations where the sender of the message has a promotion state or strategy, he/she tends to perceive the richness of the media at a higher level than predicted according to the existing literature on the subject (medium characteristics, knowledge experiences, and

social influence). In contrast, managers and employees with a prevention focus or strategy perceive the richness of media to be based solely on the intrinsic characteristics of the medium, the experiences of knowledge of the sender with the medium, and the social influence received by the sender of the message on the usefulness of the media. These results have certain implications for the companies. The literature concluded that two managers or employees with similar experiences within the same company should have a similar perception of the richness of a particular communication medium; however, our results show that it is incorrect. The reception of a message whose content or significance does not fit the media richness an employee perceives can lead to misunderstandings and friction between the two communications actors. This fact leads to the observation that the message sender should consider a self-regulatory focus receiver before sending the message.

A secondary result we have obtained for the research refers to the assessment of social influence on the perceived richness of a communication medium. This construct has been included in the theories on the use of media with very different results, as previously mentioned. For this reason, we decided to fragment the two-dimensional construct based on the source of influence: produced by supervisors and generated by co-workers. The results show that the influence produced by supervisors is positively related to the message sender's perceived level of richness. In contrast, social influence from co-workers had no significant relationship with perceived richness. These results may explain the disparate results reported in the literature on the effects of social influence on the perceived richness of a communication medium by the sender of the message. The main conclusion of these secondary outcomes of the research is that supervisors have an important responsibility to introduce communication policies within organizations as their influence on the use of media is quite significant.

As previously mentioned, this research has focused solely on one communication medium to achieve its goals and, as such, this could be considered to be one of its main limitations. However, the results of previous research on the usefulness of the theories of media suggest that these results could be extrapolated from email to other media. We are suggesting that the scientific community needs to apply this line of research to other media; we could use the results of this research as a starting point. Finally, the study of the impact of skills and motivations on behavior management and employees in relation to their sources of self-regulation could also be interesting; this would allow researchers to observe these effects on the richness of a communication medium. As a starting point, we suggest beginning with proposals by Meyer et al. (2004), which suggest that the focus of promotion and prevention reflect different motivation states.

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