The Impact of Formalization and Centralization on Organizational Communication: A Study on a Highway Concessionaire in the Klang Valley, Malaysia

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Abstract

Organizational structure influences the flow of organizational communication and affects organizational efficiency and morale of personnel. The hierarchical nature of most organizations further complicates the communication flow among members. This study examines the impact of the organizational structure on the organizational communication pattern in a highway concessionaire company in the Klang Valley, Malaysia. Organizational structure is illustrated by the degree of formalization and centralization found in the organization. Organizational communication, a multidimensional construct, is analyzed through the satisfaction level in the communication climate, upward communication, downward communication, horizontal communication, organizational perspective, and organizational integration. Data on the study is principally gathered through the questionnaire-aided survey administered to employees at all levels in the company. The study revealed, among others, that centralization and formalization to have a positive impact on organizational communication satisfaction in the organization. The findings are thus in a contrary to a line of other research findings in the literature. The study therefore provides empirical evidence to the on-going debate on what type of organizational structure promotes communication satisfaction in the organization. The study concludes that there is no specific type of organizational structure that works best in every situation as it involves a variety of other variables.

Keywords

Organizational communication, centralization, formalization, communication satisfaction

Introduction

Intellectual debates pertaining to the types of organizational structure that best promote effective flow of communication is an on-going concern. Such discourses continue to take centre stage among academics specializing in communication studies and those in management practices. It has been argued that a clear hierarchy in the organizational structure reduces confusion as it makes clear the line of command. The proponents of the competing view, however, underscore the notion that a flat organizational structure with less bureaucracy is more effective in promoting the flow of ideas and information as communication becomes more direct. The basis for such concerns and often conflicting views is understandable. Communication has always been a pervasive activity in organizations and it is vital for organizational effectiveness (Zaremba, 2003).

In view of the current scholarly state of affairs associated with organizational structure and communication, this study examines the impact of the organizational structure on the...
organizational communication satisfaction in a highway concessionaire company in the Klang Valley, Malaysia. The study is anchored in seeking some answers from two fundamental research questions. Firstly, the study is directed towards establishing the relationship between formalization and communication satisfaction. Secondly, it seeks to ascertain the relationship between centralization and communication satisfaction. The answers to such questions constitute a modest contribution to the already extensive volume of knowledge on the subject.

**Organization and Communication**

The literature offers an abundance of theoretical constructs and research findings on the influence of organizational structure on the flow of communication. Organizational theorists primarily focus on how formal organizational structure affects the flow of communication where communication is treated as a dependent variable. Basically, organizational structure is defined as the ways in which responsibility and power are allocated and work procedures are carried out by organizational members (Gerwin and Colodny, 1992; Germain, 1996). There is ample evidence in the literature to indicate that formal organizational structure strongly influence communication patterns within firms. It has also been pointed out that the network of interactions in organizations is tightly bound to the formal reporting structure (Burt, 2004; Han, 1996). It is not an understatement to note that an organization’s formal organizational structure forms the backbone of the interaction pattern of an organization.

The multidimensional nature of organizational structure is well documented in the literature. These include centralization, formalization, configuration and complexity (Hage, 1980). Sociologists, in particular, found that these four variables constitute the greatest impact on communication (Grunig, 1992). On a similar ground, Wagner and Hollenbeck (1991) suggest that the three dimensions which influence the flow of communication in an organization are specialization, formalization and centralization. Grunig (1992) further noted that organizational structure and communication are strongly related to employee satisfaction.

The present study, however, only addresses two of the organizational structure variables - centralization and formalization. Since very limited number of studies is available on the subject, it is essential and important to examine the relationships between these two variables and communication (Jablin, 1982). Similarly, there have been very few studies that examined relationships between formalization and communication. Centralization gives an indication of the allocation of organizational resources and determines the policies and objectives (Andrews et al., 2008). As such, it refers to the degree of authority that is not delegated but concentrated at the top management. Organizational communication can be analyzed through
the satisfaction level in the communication climate, upward communication, downward communication, horizontal communication, organizational perspective, and organizational integration (Clampitt and Downs, 1993). Formalization, on the other hand, refers to rules, instructions, procedures and communications established that prescribes acceptable or expected action of employees with the purpose to control their behavior (Miller and Salkind, 2002).

**Methodology**

The data for the study were collected from the employees of KESAS Holdings Berhad., a highway concessionaire company operating in the Klang Valley, Malaysia. The company employs a total of 320 employees in which 90 percent are non-supervisory operatives while the remaining holds supervisory or managerial positions. About three quarters of the employees, who are the toll-booth operators and traffic safety personnel, are in the Operations Department. The remaining 25 percent of the company’s staff are in the engineering and maintenance department, human resource and administration department, finance and treasury department, information technology department, and other supporting services.

Down’s and Hazen’s (1977) Communication Satisfaction Questionnaire (see Rubin, 2004) was adapted to measure the employees’ perception of the organization’s communication flow. The instrument measures eight dimensions which are communication climate, organizational integration, media quality, horizontal communication, organizational perspective, personal feedback, subordinate communication, and receptivity of employees to downward communication. The study also measured the degree of formalization in the organization. As indicated earlier, formalization is the extent to which procedures and instructions are formally established in written rules and regulations. Fourteen items that are related to the standardization of work and rule observation were used to measure the level of formalization. These two scales, adapted from Hage and Aiken (1967) provide valid measure of formalization in organization. The questionnaire employed the 5-point Linkert scale, from strongly disagree to strongly agree. High score refers to high level of standardization of work and rule observation. The index to measure centralization is adapted from Hage and Aiken (1967). The respondents were required to indicate the hierarchy of authority in their organization to a range of scores where 1 indicates strongly disagree and 5 indicates strongly agree. High scores indicate high level hierarchy of authority.
The Organizational Structure of the Company

KESAS Holdings Berhad was incorporated in Malaysia in 1993 as an investment company. The shareholders of the company include the Perbadanan Kemajuan Negeri Selangor (30%), Gamuda Berhad (30%), Arab-Malaysia Development Berhad (20%) and Permodalan Nasional Berhad (20%). The Perbadanan Kemajuan Negeri Selangor is a state-owned company while Gamuda Berhad is a leading privatization entity with a vast portfolio of various major road and highway projects. The Arab-Malaysia Development Berhad is a prominent entity in the Malaysian corporate landscape with interests in property development, construction and engineering services. The Permodalan Nasional Berhad is an instrument of the Malaysian government’s New Economic Policy to promote share ownership in the corporate sector among the Malays and other indigenous people and for Malays and other Bumiputera professionals to participate in the creation and management of wealth. In terms of ownership, KESAS is a government-linked company and the overwhelmingly Malay personnel found in the organization are a reflection of the state’s policy. Despite of the majority Malay employees, KESAS is a corporate entity even though Malay is largely spoken notably among the lower ranking employees.

Highway concessionaire companies in Malaysia are under the direct control of the Malaysian Highway Authority. Many of the requirements and standards, including organizational set-up, to be followed by the highway concessionaires come from this organization. The scenario in KESAS is no different. The company is centered on functional structure in which there are two major divisions: Engineering and Operations Division, and Finance and Corporate Division. The Engineering and Operations Division is further divided into two separate departments namely Engineering and Maintenance, and Operations. The Finance and Corporate Division, on the other hand, consists of four departments which are the Human Resource and Administration, Finance and Treasury, Information Technology, and Public Relations. The Operations Department has the biggest number of staff in the organization. This is followed by Engineering and Maintenance Department. The other four departments are comparatively smaller since they are only providing supporting functions. The Engineering and Maintenance Department is divided into mechanical and electrical/electronic section, civil section, and plant and equipment section. While the Operations Department is divided into toll operations and traffic safety. Both sections are established for operating and maintaining the highways and its other facilities, and at the same time meeting standards and other specific requirements imposed on the highway operations by the Malaysian Highways Authority. Based on the description given above, KESAS Holdings, Berhad., therefore,
possesses a tall organizational structure. The structure has multiple layers which include seven levels of hierarchy; from Chief Operating Officer down to the toll-booth operators.

**Results and Discussion**

Summary of the results for standardization of work, rule observation, and centralization is illustrated in Table 1. The degree of formalization was measured through two dimensions: standardization of work and rule observation. The overall mean score of standardization of work is 3.489 where the reliability coefficient, $\alpha$, is 0.810 (variance at 0.515, and standard deviation 0.718). The result indicates a marginally high level of job standardization in the organization. The results may be influenced by the company’s nature of operations which are mainly regulated by standards and other specific requirements imposed by the Malaysian Highways Authority. Furthermore, KESAS Holdings Berhad is an ISO 9000 certified company where procedures, manual, standards, and documentation are highly used and referred to.

The overall mean score for rule observation, on the other hand, is 3.711 where the reliability coefficient, $\alpha$, is 0.845 (variance at 0.306, and standard deviation 0.553). The result indicates a moderately high level of rule observation in the organization. The behaviors of the employees are governed by rules and regulations as they are expected to follow the operating procedures that have been established. The overall mean score for the level of centralization is 3.636 where the reliability coefficient, $\alpha$, is 0.845 (variance at 0.442, and standard deviation 0.665). The findings indicate that the organization demonstrates a considerably high level of hierarchy of authority and therefore the organization is highly centralized. Decisions especially with regards to policy-related and work-related matters are referred to higher authorities in the organization. One of the reasons could be due to the tall structure of the organization. Organizational structure that is featured by a tall hierarchical level (seven levels) and a narrow span of control characterized a centralized organization (Ebert and Griffin, 2005).

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Mean</th>
<th>Variance</th>
<th>Std. Dev.</th>
<th>Reliability Coefficient ($\alpha$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardization of Work</td>
<td>3.489</td>
<td>0.55</td>
<td>0.718</td>
<td>0.810</td>
</tr>
<tr>
<td>Rule Observation</td>
<td>3.711</td>
<td>0.306</td>
<td>0.553</td>
<td>0.845</td>
</tr>
</tbody>
</table>
The analysis of mean scores for communication satisfaction in KESAS Holdings Berhad reveals the diversity of the responses of the employees for the various dimensions. The mean scores of the various dimensions in communication satisfaction however, centered in the range of 2.99-3.63 (Table 2).

Table 2: Rank Orders of Communication Dimensions

<table>
<thead>
<tr>
<th>Rank</th>
<th>Dimensions</th>
<th>Mean</th>
<th>Variance</th>
<th>Std. Dev.</th>
<th>Reliability Coefficient (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Media Quality</td>
<td>3.63</td>
<td>0.44</td>
<td>0.67</td>
<td>0.7</td>
</tr>
<tr>
<td>2</td>
<td>Organizational Integration</td>
<td>3.60</td>
<td>0.45</td>
<td>0.67</td>
<td>0.6</td>
</tr>
<tr>
<td>3</td>
<td>Communication Climate</td>
<td>3.47</td>
<td>0.3</td>
<td>0.54</td>
<td>0.6</td>
</tr>
<tr>
<td>4</td>
<td>Supervisory Communication</td>
<td>3.41</td>
<td>0.44</td>
<td>0.66</td>
<td>0.7</td>
</tr>
<tr>
<td>5</td>
<td>Subordinate Communication</td>
<td>3.27</td>
<td>0.43</td>
<td>0.66</td>
<td>0.8</td>
</tr>
<tr>
<td>6</td>
<td>Organizational Perspective</td>
<td>3.26</td>
<td>0.38</td>
<td>0.61</td>
<td>0.7</td>
</tr>
<tr>
<td>7</td>
<td>Personal Feedback</td>
<td>3.08</td>
<td>0.46</td>
<td>0.68</td>
<td>0.7</td>
</tr>
<tr>
<td>8</td>
<td>Horizontal Communication</td>
<td>2.99</td>
<td>0.42</td>
<td>0.65</td>
<td>0.6</td>
</tr>
</tbody>
</table>

The results indicate a marginally high level of conduciveness in the communication climate (mean score 3.47) in the company. The findings showed that the employees of KESAS Holdings Berhad like to communicate with one another at their workplace. The ‘warm’ communication conditions in the organization are thus conducive to interaction (Zaremba, 2003: 150). The findings also indicate a moderately high satisfaction with the supervisory communication. The results thus give a good reflection of the upward communication even though the organizational structure of the company is featured by a tall 7-level hierarchy. The overall mean score of 3.60 for organizational integration is (Variance 0.45, Std. Dev. 0.67, α=0.6) indicates a considerably high level of satisfaction in organizational integration. The results show that the employees have been adequately informed about the requirements of their responsibilities (mean score 3.81). It is quite evident that the operation procedures of the concessionaire company, which are regulated by standards and specific requirements imposed by the Malaysian Highways Authority, have been duly and adequately cascaded to the employees. Adequate information about the department and their responsibilities would give the employees a sense that they are being integrated (Downs, 1991). Employees are also
generally satisfied with the extent to which meetings are well-organized, written directives are clear and communication is accurate. The results lend support to the choices made by the management in disseminating information as the employees’ responses indicate acceptable media quality. As argued by Daft and Lengel (1986), understanding the choices made by members of the organization about communication media is important to ensure information richness. It was, however, found that the employees are not satisfied with the accuracy of informal communication (e.g. gossips and chit-chats) where the mean score is 2.8 and their satisfaction level with the free-flowing of informal communication is average (mean score 3.1). As for the organizational perspective, the results indicate a moderately high level of satisfaction where the mean score is 3.3. The dimension of personal feedback seeks to get an insight if the employees know how they are being judged and how their performance is appraised. The total mean score of the dimension is average which is 3.08. The employees exhibit moderately high satisfaction with their willingness to send good information upward and to their superiors. The results also indicate that the employees are comfortable to communicate their problems to their superiors.

A bivariate correlation between standardization of work, rule observation (formalization), centralization and communication satisfaction were examined through Pearson’s product-moment correlation. The findings indicate that there exists a relationship between communication satisfaction and formalization which refers to the extent to which procedures and instructions are formally established in written rules and regulations. As indicated in Table 3, standardization of work is positively correlated with organizational integration (r=-0.181, p=0.001) and media quality (r=0.191, p=0.01). The findings indicate that the higher the level of job standardization, the higher the degree of employees’ satisfaction in receiving information about the immediate work environment. It also indicates that the higher the level of job standardization is the more effective and efficient communication channels are. One theoretical presumption is operations regulated by standards and other specific requirements e.g. ISO 9000 certification where high emphasis is placed on manual, standards and documentation can lead to communication satisfaction in the quality of media and adequacy of information received about job and policies.

Standardization of work is negatively correlated to horizontal perspective (r = -0.296, p=0.01), organizational perspective (r= -0.169, p=0.02), subordinate communication (r= -0.205, p=0.01) and personal feedback (r= -0.322, p=0.010. The findings showed that the higher the degree of standardization of work the lower the satisfaction with horizontal perspective, organizational perspective and personal feedback. The highly inflexible standardization of work can give a negative impact to the free-flow of informal
communication and the satisfaction with the information about the organization as a whole, its goal and performance. The highly standardized work also leads to low willingness of employees to send information upward to their superiors and may not be comfortable to communicate their problems to the superiors. This suggests for close supervisory relationship with the subordinates.
Table 3 Pearson’s Product-Moment Correlation Coefficients

<table>
<thead>
<tr>
<th>Standardization of work</th>
<th>Pearson Correlation</th>
<th>Communication climate</th>
<th>Supervisory communication</th>
<th>Organizational integration</th>
<th>Media Quality</th>
<th>Horizontal Perspective</th>
<th>Organizational Perspective</th>
<th>Subordinate Communication</th>
<th>Personal Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (1-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>275</td>
<td>.001</td>
<td>0.01</td>
<td>.001</td>
<td>.002</td>
<td>.001</td>
<td>.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centralization</td>
<td>Pearson Correlation</td>
<td>.251**</td>
<td>.165**</td>
<td>.243**</td>
<td></td>
<td></td>
<td>.244**</td>
<td>.172**</td>
<td></td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.001</td>
<td>.003</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.002</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>272</td>
<td>272</td>
<td>272</td>
<td>272</td>
<td>272</td>
<td>272</td>
<td>272</td>
<td>272</td>
<td></td>
</tr>
<tr>
<td>Rule Observation</td>
<td>Pearson Correlation</td>
<td>.342**</td>
<td>.317**</td>
<td>.412**</td>
<td>.415**</td>
<td>.216**</td>
<td>.190**</td>
<td>.121**</td>
<td></td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
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</tr>
<tr>
<td>N</td>
<td>272</td>
<td>272</td>
<td>272</td>
<td>272</td>
<td>275</td>
<td>275</td>
<td>275</td>
<td>275</td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (1-tailed).
* Correlation is significant at the 0.05 level (1-tailed).
As illustrated in Table 3, rule observation is positively correlated to communication climate ($r=0.341, p=0.001$), supervisory communication ($r=0.317, p=0.001$), organizational integration ($r=0.412, p=0.001$), media quality ($r=0.415, p=0.001$), organizational perspective ($r=0.216, p=0.001$), subordinate communication ($r=0.190, p=0.001$) and personal feedback ($r=0.121, p=0.001$). The greater the rule observation is the higher the degree of satisfaction with the communication climate, supervisory communication, organizational integration, media quality, organizational perspective, subordinate communication and organizational perspective. Highly formalized work activities, which are governed by rules, procedures, instruction and written communication (Miller and Salkind, 2002), could therefore enhance communication satisfaction amongst employees in the organization. These rules and regulation act as guidelines to the employees in carrying out their daily tasks. This explains how the rules, regulations and instructions affect the level of satisfaction with communication in KESAS Holdings Berhad. Findings on formalization thus suggest that the management needs to standardize the work activities and develop and enforce rules and regulations (see Hage and Aiken, 1967) in the organization.

Evidently there is a positive relationship between centralization and the overall communication satisfaction. The findings are consistent with Wagner’s and Hollenbeck’s (1992) argument that centralization does influence the flow of communication in an organization. The results revealed that centralization is positively correlated to communication climate ($r=0.251, p=0.001$), supervisory communication ($r=-0.165, p=0.003$), organizational integration ($r=0.243, p=0.001$), media quality ($r=0.361, p=0.001$), organizational perspective ($r=0.244, p=0.001$) and personal feedback ($r=0.172, p=0.002$). The higher the degree of hierarchy of authority, the higher communication satisfaction is. The findings are indeed enlightening as there has been a line of research which indicate a contrasting finding. Research suggests that centralization is negatively correlated to communication effectiveness, adequacy and openness (e.g. Yammarino & Dubinsky, 1992). Similarly, Hage (1980) hypothesized that centralization inhibits communication in organization. The underlying reason for such relationship could be due to the nature of work for majority of the employees in the organization. As indicated earlier about three quarters of the employees are the toll-booth operators and traffic safety personnel where their level of participation in the decision-making process is rather low. In such highly centralized organization, knowledge, information and ideas are concentrated at the top and decisions are cascaded down the organization. Centralization in the organization where decision-makings are at higher levels of management and that the decisions are cascaded down the organization, leads the employees feel that they are motivated to meet the organization goals, satisfied with
the downward communication, highly integrated, satisfied with the clarity of the sources of information and adequacy of important information.

**Conclusion**

One of the underlying causes to failures in organization is inefficient communication flow (Dewine, 2001) as communication is a central component to organizational effectiveness (Zaremba, 2003). The overall research findings in this study indicate that there is a positive relationship between formal organization structure, characterized by centralization and formalization, and communication satisfaction. The overall findings are thus in contrast to a line of other research findings reported in the literature. The study therefore provides empirical evidence to the on-going debate on what type of organizational structure promotes communication satisfaction in the organization where it concludes that there is no specific type of organizational structure that works best in every situation. Organizational structure however must align itself with the communication structure to enhance effectiveness in the organization. The understanding of how the dimensions of the organizational structure affect the flow of communication should further be investigated in future research. It is also imperative that the role of culture in the communication patterns and networks should be seriously looked into. The component of Malay employees, which constitutes the majority of the personnel in the company studied, may lead to the question how far the cultural elements influence the organizational communication.

**References**


