MANAGEMENT OF EMAILS AS OFFICIAL RECORDS IN SINGAPORE: A CASE STUDY

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ABSTRACT

Email has become so prevalent in today’s business environment that they are now used as the de facto tool for business wide communication and collaboration. Many organisations have realized that emails repositories represent an increasingly large part of the organisation’s “knowledge assets” that must be retained and managed securely. Hence, the management of emails as official records has become very critical and essential to an organisation. In order to assess the understanding of the importance of such management and the mindset of email users, an exploratory survey was conducted among corporate email users in Singapore. A total of 76 responses from users in financial services, government industries and information technology industries were obtained and analysed. The results show that emails are recognised as important business records and that the establishment of emails policy and guidelines defining use of email, as well as systems for managing them are deemed essential. Most employees recognize the critically of email in their work and practise compliance on their organisations’ emails policy, guidelines and technical considerations.

KEYWORDS: Email, Electronic Mail, Emails Management, Records Management (RM), Record Keeping (RK)

1. INTRODUCTION

Emails have been around for more than 30 years. The early business use of emails was strictly within an organisation, as email software was not built to exchange messages between systems. Standards subsequently evolved paving the way for emails to be sent to anyone anywhere, since the same protocol is used to transfer emails. Over the years, emails have evolved from simple text characters sent over phone lines to full colour documents with embedded graphics, voice and video (Phillips, 2001). With the time, these attachments increase the size of emails tremendously.

The use of emails is a complex mixture of legislative history, market forces, business practises and technology trends (Haverson, 2002). Organisations will have to deal with problems of access and technological obsolescence, legal issues, and questions of confidentiality, reliability, and authenticity, including encryptions (Enneking, 1998).
Most organisations recognize that emails are a source of official records and have established some form of emails policy and guidelines. But emails remain the worst professionally managed form of records. In most organisations, they are left unmanaged in user mailboxes, subject to random retention and disposition by users. This results in non-compliance with laws and regulations, and has also led to the accidental or sometimes deliberate destruction of official documents, to the unnecessary and expensive retention of obsolete records, and most importantly, to the loss of organisational knowledge. Organisations face great risk of losing significant records and/or being bankrupt by electronic evidence discovery. The recent high-profile battles involving Enron and WorldCom accounting, clearly illustrate that by leaving a trail of electronic documents can be legally damaging, and searching through large volume of archived messages can be expensive (Moore, 2002).

Any document created, received, communicated, used as an evidence of an organisation’s activities (such as administrative, legal, financial, accountability and cultural) or business is called as record (National Archives of Australia, 2004). Those records include paper, microfilm or electronic forms that are created to support business activity and are kept as evidence of that activity. Nowadays many organisations are using email messages as records of business activities however, email messages are not always treated as records of business. Email messages can be considered as records only when they contains information relating to business transactions, decisions taken relating to the business transaction or any discussion that took place in relation to the transaction (National Archives of UK, 2004). In all other cases emails are not considered as records. The context and the content of the email message needs to be considered before deciding it as record. In this study, the term emails is used for the email messages and other term email represents to email system.

This study aims to assess emails usage and management among corporate users, and the strengths and weaknesses of emails management as official records in Singapore. The objectives include the following:

- Assess the productivity of corporate users in managing emails and attachments;
- Assess the extent of redundant emails in the organisations;
- Assess the impact of email attachments on the organisations;
- Determine whether the organisation has implemented a uniform emails policy;
- Assess the extent of emails management training; and
- Assess the handling of critical emails and attachments.

2. RELATED RESEARCH

A Pew study (Powell, 2003) shows that email are an integral part of American workers’ lives and 98% of those employed use email on the job. Research shows that the average American corporate email user gets about 34 emails per day and it is growing at about 30% annually (Marsan, 2002). International Data Corporation (IDC) predicts the number of email worldwide will explode from 2.6 trillion in 2000 to 9.2 trillion in 2005, largely as a result of e-commerce and automated customer support (Harney, 2001). A survey on computer users in the US shows that office workers spend an average of 49 minutes to manage their emails everyday and 34% of their emails are considered “occupational spam” (Buechner, 2001). Organisations face emails related problems that include adequate emails policy and guidelines; improper emails management training; redundant
emails; incomplete emails backup; critical information destroyed daily; satisfying regulatory obligations; reducing discovery costs; define and protect corporate knowledge; technology issues; surging maintenance costs, etc.

3. METHODOLOGY

The survey method through questionnaire tool is an excellent and effective method for this study. First, it is able to collate vast amount of information to determine users’ attitudes. Second, it covers a maximum number of respondents within the limited time-frame. The questionnaire (Appendix-A) comprise 26 questions, organised into five sections: personal profile, emails management, emails policy and guidelines, technical considerations and suggestions. The information collected under personal profile includes their age, gender and ethnic background to study whether these independent variables play any significant difference between different types of user groups. Mostly structured questions are asked so that respondents feel easy in completing the questionnaires and hence increase participation. As and when required a few open-ended questions are also used to collect reasons and personal opinions on various issues related to this topic. The questionnaire was piloted with 10 people and improved content and structure based on their responses to enhance clarity of questions. A total 100 questionnaires were distributed both by email and hardcopy form to organisations belongs to Financial, Government organisations, and IT organisations. The reasons for selecting these three sectors including: they are the large business sector organisations in Singapore, having good contacts with these organisations so that better response rate to the survey, and others sectors are not very much willing to participate in the survey. Random sampling was used for selecting these organisations for this study. The survey was conducted in between 13 to 31 January 2003. A total of 76 responses were received, of which 57% in hardcopy and 43% through email. Three of them (4%) were rejected as more than 20% of the mandatory entries were not completed. A final 96% (73) of the responses were analyzed for this study.

4. MANAGEMENT OF EMAILS AS OFFICIAL RECORDS IN SINGAPORE

4.1 Respondents Profile

About 45% of the respondents were in the 30s age group, 32% in the mid- to late-20s age group, the remaining in the 40s age group, while 5% did not indicate their age group. More than half (51%) of the respondents were females, while 46% were males and 3% did not indicate their gender. The majority (78%) of the respondents was Chinese, 12% Malay, 6% Indian, while the remaining 3% comprises Eurasians, and 1% respondents did not indicate their ethnic background. More than half (58%) of the respondents are in the executive or support/operations ranks, 37% in the first-line to middle manager ranks, while none of the respondents was in the top manager rank, and 5% did not indicate their profession ranks.

The majority (81%) of the respondents were from large organisations with more than 500 staff, 10% from medium size organisations with staff size between 50 to 250, 8% from organisations with 50 or less staff, and 1% did not indicate their organisation’s staff size. Almost half (47%) of the respondents worked for government institutions such as Central Provident Fund Board, Land Transport Authority, Ministry of Education, Ministry of Home Affairs (Police), National Library Board, Port Singapore Authority and academic
institution such as the Nanyang Technological University. The other 46% of the respondents worked in various sectors such as IT, Finance, Engineering, Shipping, Aerospace, Airfreight cum Logistics. A small percentage (7%) of the respondents was from various industry sectors such as telecommunication, consultancy, manufacturing and transport. Though, the survey had respondents covering a wide range of industry sectors, the main concentration was on Financial services, Government industries and IT industry sectors.

4.2 Emails Management

The majority (82%) of the respondents agreed that emails were very critical in their work, 15% agreeing that emails were fairly critical and a meagre 3% remained neutral or felt that emails were not so critical in their work. Of these, one was a teacher and the other was a librarian. Their works were mostly centred on direct face-to-face interaction, thus they felt they were able to function their work even without using emails.

![Figure 1: Emails manage by the respondents per day](image)

Figures 1 and 2 shows the number of emails managed by the respondents daily and the percentage of these emails containing attachments. The majority of the respondents sent 82% and receive 89% more than 10 emails per day. Only a small percentage of the remaining 18% send and 11% receive less than 10 emails per day.
Figure 2 shows the percentage of emails that they sent and or received contain attachments. The majority (85%) of the respondents managed more than 10% of emails attachments as contrast to a small percentage (15%) of the respondents managed 10 and less emails attachments. However, it is not clear that the contents of these attachments and their retention time to business transactions are worth exploring.

4.2.1 Productivity of Users

The survey shows that respondents spent on an average 2 hours 10 minutes to manage their emails every day, of which only 78% are related to work. This translates to an approximate 28.6 minutes productivity time loss per employee per day for the organisation to manage non-work related emails and the remaining time (101.4 minutes) they have used to manage emails related to their work. In a related-study, it was found that an average American corporate email user gets about 34 messages per day (Marson, 2002), spend on an average 49 minutes managing their emails everyday and 34% of their emails are considered “occupational spam” (Buechner, 2001). This works out to an approximate 16 minutes productivity time loss per worker per day for the organisation. These results show that many corporate email users are spending a substantial amount of their time to manage their emails daily and part of that time, is lost on managing emails that are not related to work, such as personal and/or spam mails.

According to David Ferris study, during 2001 on an average American Business users sent about 15 emails and received about 20 messages per day. He had expected that the volume will grow about 60% on receiving mails and 80% on sending emails (Shinkle, 2001). Contrastingly, during January 2003 Singapore users received/sent only 10 emails per day which is 50% lower even after two years of IT developments. This shows that the usage of emails in Singapore both for work and personal activities is much less compared to US email users. In May 2000 eCRM conference, a META Group analyst projected that data increases of a hundredfold within five years through the year 2004 (Clements, 2001). They also predicted that enterprises that are having difficulty in copying with three terabytes of data today need to quickly find solutions for dealing with 300 terabytes of data tomorrow. In case of Singapore, these predictions are a bit slow particularly the growth of enterprise email messages.
4.2.2 Redundant Emails

The survey shows that a total of 22% (15% non-work related and 7% spam) of the organisation’s emails collections contain redundant or worthless data. This is inline with Shinkle’s (2001) observation that many organisations estimate that up to 70% of the emails they currently receive are not directly related to organisations main activities/business so they need not be archived for long term preservation. He has found that the remaining 30% emails only contains important information and are directly related to organisations business/activities. When these organisations preserve total emails collection (100%), they face difficulties in searching, retrieving and leverage for competitive advantage or litigation protection.

Redundant emails can present several problems to the organisations. First is an ineffective emails backup. Second, organisations incur additional storage space and costs to maintain them. Third, organisations have problems in defining and protecting their corporate knowledge. More importantly, such emails can pose a high security and litigation risks to the organisation, which means that appropriate procedures must be instituted to safeguard or remove this data (Shinkle, 2001).

4.2.3 Email Attachments

Figure 3: Time spent on managing emails per day

Figure 3 shows that time spent by the respondents on managing their emails. On an average, 74% of the respondents spent 2 hours 15 minutes to manage their emails, 11% of the respondents spent more than 4 hours to manage their emails while the remaining 15% of the respondents spent 30 minutes or less. Of the total emails managed by the respondents, 78% are related to work, 15% not related to work and 7% spam mails. So, on an average each user is spending 28.6 minutes time per day to manage his/her emails that are not related to work. With increasing emails size and growing volume, organisations can expect their messaging bandwidth and message storage requirements to increase tremendously. This is inline with the American trend. The David Ferris study predicted that in only 12 months (i.e. end 2002), companies can expect their messaging bandwidth requirement to be three to five times that of today and most of this growth will be driven by a rapid increase in average message size, as more messages include attached word-processing, spreadsheet, and representation software files (Shinkle, 2001).
Email attachments create several technological issues that compound the problem of managing emails (Enneking, 1998). For instance, once an attachment is saved into an email management application, after some time the organisation must be able to decode that file for the duration of the required retention period of that organisation. Long-term accessibility is a problem due to the continuous and incredible rate of changes in the IT industry. Now several email management software are available in the market for archiving email collections. Exchange Archive Solution (EAS) from EDUCOM TS is an Exchange archive solution to multiple MS Exchange email collections to Network Attached Storage (NAS) and storage area networks (SAN) and compresses these archived messages. Tivoli’s Storage Manager is another software that can be used for archiving both Exchange and Notes. The tie to retain these email collections varies from organisation to organisation. Each country will have some regulating bodies to decide the retaining period of these messages. For example, American Securities firms retain electronic documents for five years (Chudnow, 2003).

4.3 Emails Policy and Guidelines

The majority (85%) of the respondents were aware of their organisations’ emails policy and guidelines, 8% confirmed that their organisations did not have a written emails policy and guidelines while the remaining 7% were unsure. More than half (57%) of the respondents had access to their organisations’ emails policy documents (but there is no formal training or briefing given), more than a quarter (27%) had formal training in emails use and policies, 5% had been briefed by colleagues, while the remaining 11% through other means such as email notifications, company intranet, etc.

<table>
<thead>
<tr>
<th>Issues</th>
<th>Rating</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Very Poor</th>
<th>Not Indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emails are corporate records.</td>
<td></td>
<td>5</td>
<td>41</td>
<td>11</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Emails should be managed adequately.</td>
<td></td>
<td>4</td>
<td>43</td>
<td>12</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Emails need to be managed within a recordkeeping and/or records management system.</td>
<td></td>
<td>3</td>
<td>34</td>
<td>16</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Emails should be appropriately disposed of depending on their value as records.</td>
<td></td>
<td>3</td>
<td>35</td>
<td>17</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Emails should be appropriately stored and protected.</td>
<td></td>
<td>4</td>
<td>33</td>
<td>15</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

The majority (65%) of the respondents indicated that emails backup was included in the organisations’ emails policy, 8% indicated otherwise while 27% were unsure. More than half (60%) of the respondents felt their organisations’ emails policy and guidelines were good, 23% fair, 6% excellent. A small percentage (6%) of the respondents felt that their organisations’ emails policy and guidelines were poor or very poor. A minor percentage (5%) of the respondents did not indicate their ratings. Overall, the respondents felt that their organisations’ emails policy and guidelines were adequate. The majority of the respondents considered emails are corporate records (60.5%) and felt that they should be
managed adequately (61.8%). They also felt that organisations should use RK and RM systems (48.7%) to manage these emails. Organisations should keep only active records and dispose emails based on their information value as records and also retain these active records as per their retention and disposal schedules. According to organisations’ emails policy and guidelines, important emails (vital records) should be stored and protected in a safe place for future use.

4.3.1 Organisations and Emails Policy

The survey shows that 85% of the respondents’ organisations have a written email policy and guidelines while 15% do not. Out of these organisations who do not have written emails policy, 67% (4) were from the government industries while the remaining 33% (2) were from the telecommunication and IT sectors respectively. Another small percentage, 7% (5) of the respondents was not sure whether their organisations had a written emails policy and guidelines. Of these respondents, 60% (3) were from the government industries while the remaining 40% (2) were from the manufacturing and banking sectors respectively. Since there is no government regulation on emails management, even big organisations in Singapore do not have clear emails policy & guidelines. This corresponds to Varchaver & Bonamici (2003) observation that the buzz phrase for email consultants in recent years is “having an emails policy”, something four-fifths of American companies already do. Furthermore, the 2001 AMA survey (AMA Research, 2001) found that 81.4% of companies have written emails policy for their emails use.

Emails policy management is the next logical step in the 30-year evolution of email (Moore, 2002). Organisations must establish an appropriate emails policy and guidelines to manage their email effectively and efficiently. According to “The State Records of South Australia” (2002), the purpose of the policy statements is to establish an approach to the management of emails as official records and they incorporate a series of actions that need to be implemented by agencies to ensure that emails as official records are appropriately managed. The purpose of the guidelines is to assist agencies in implementing the policy statements. In an email policies and practices survey (Kahn and Blair, 2004), 74% of the organisations viewed that email as a productivity tool with clear business to organisation. It was noticed that all organisations use email for their business purposes along with others tools like mobile messaging (59%), wireless PDAs (81%), online discussion forums (71%), and peer-to-peer (P2P) file sharing (51%). Surprisingly the majority of the organisations are failing to create policies to control and manage these technologies (e.g. 22% organisations only had formal written policies P2P file sharing). Now, a majority of the organisations are making changes to the way emails are managed, by creating new policies (68%) and taking action to improve security (64%). The best email management policy for most of the organisations is that addresses both knowledge management and legal liability issues (Wilkins, 2002; Flynn & Flynn, 2001). To reduce legal risks of email records is to develop a system that is easy to use and accessible. The selected system should have clear email archiving policies, retention of messages to legal or regulatory requirements, and easy access to the storage system. All companies are required to retain records related to their business and operational needs. Rarely companies enforce the same type of control on emails and e-records. To protect against legal risks and costs, organisations need to develop, implement and enforcement-based records control program that will apply to all types of records (Hatfield, 2002).
Finally, the respondents were asked about the compliance with their organisations’ emails policy and guidelines. Of the total, 74% of the respondents indicated that they were fully compliant with their organisations’ emails policy and guidelines, 24% fairly compliant while 2% did not indicate their compliancy. On the reasons for not being compliant, 21% of the respondents felt that they had no time, another 21% of the respondents felt tedious, 8% did not know what to do, 5% felt complex and 45% did not answer to this question. This indicates that staff simply follows the rules and regulations introduced by the organisations however, in several organisations clear cut and established emails policy and guidelines are missing. That is causing main problem to the staff compliance to the organisations’ emails policy. In this regard, a uniform government regulation may play more effective role in implementing same policies throughout all Singapore organisations.

4.4 Awareness about Records Management System

About half (49%) of the respondents were aware of their organisations’ recordkeeping (RK) systems, 10% unaware, and 41% unsure. For records management (RM) systems, 46% of the respondents were aware, 14% unaware and 40% unsure. Up to 12% of the respondents used the RK system, 5% used the RM system, 18% used both systems, and 25% used neither, while 40% unsure. This shows that almost half of the staff is not aware about their organisations’ recordkeeping and records management systems which they are supposed to use for managing their emails. All the organisations must inform about these systems and also provide basic training to use so that staff will save time in managing their emails. This ultimately helps the organisation in saving time and improves overall output.

4.4.1 Emails Management Training

The survey shows that about half of the respondents are not sure about organisations’ emails policy and guidelines, RM systems used to manage their emails. This ignorance can be attributed to the lack of proper email management training in the organisations. The survey shows that half (57%) of the respondents knew their organisations’ emails policy and guidelines through having access to these documents without any formal training or briefing.

![Figure 4: Getting to know the organisation's emails policy and guidelines](image-url)
This trend is inline with the observation of Varchaver & Bonamici (2003) that of the four-fifths of American companies already have an emails policy; only 24% of these do not have any kind of training for their employees. Furthermore, according to the American Management Association (AMA) survey (AMA Research, 2001), emails management training is rare: only 23.9% of companies have current training programs, 10.3% plan to have such training programs and 64.1% have no training programs at all.

Emails management is a critical function of the organisations. Maintaining and providing access to emails over time involves shared responsibilities between the organisations and their employees (Hunter, 2000). Hence, it is crucial that organisations disseminate appropriate information on emails management and related issues to their employees so that employees are aware and therefore motivated to be compliant. Leaving staff alone can be dangerous because they can misinterpret the meanings and do wrong things that can eventually cause harm to the organisations.

4.4.2 Handling of Critical Emails and Attachments

Users are typically left to manage their email on their own. The survey shows that 33% of the respondents saved their emails into personal folders on their system, 25% printed and filed hardcopies in personal files, 19% saved their emails into corporate servers, and 18% printed and filed hardcopies in shared files. This corresponds with Ennecking’s (1998) findings that informal corporate policies or cultures often dictate printing significant emails to paper. This is also inline with Shinkle’s (2001) observation that email users - limit in size by system performance, backup storage, and strict limits on their mailbox size - either delete emails, or archive them to personal emails storage folders that are normally stored on individual systems, or to a network file server in order to free up space.

Table 2 illustrates the ways in which the respondents save their emails and attachments. The majority (71%) of the respondents graded equivalent effort to retrieve both their colleagues’ and their own stored emails and attachments, while 29% expressed increasing difficulty in accessing their colleagues’ emails and attachments as compared to retrieving their own.

Table 2: Ways in which respondents save their emails and attachments

<table>
<thead>
<tr>
<th>Ways to save Emails:</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save to personal folder on the desktop.</td>
<td>33</td>
</tr>
<tr>
<td>Print and file hardcopy in the personal file.</td>
<td>25</td>
</tr>
<tr>
<td>Save to corporate server that is accessible by you and an identified group of persons.</td>
<td>19</td>
</tr>
<tr>
<td>Print and file hardcopy in shared file.</td>
<td>18</td>
</tr>
<tr>
<td>Save to corporate RK / RM systems in the organisation.</td>
<td>4</td>
</tr>
<tr>
<td>Not Indicated</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ways to save email attachments:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Always save the attachment in its original format, even if the format is not supported.</td>
<td>52</td>
</tr>
<tr>
<td>Ways to save Emails:</td>
<td>% of Respondents</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Always save the attachment in a format that is supported. This involves converting the attachment from a non-supported format to a format that is supported.</td>
<td>26</td>
</tr>
<tr>
<td>Only save the attachment if the format is supported. Discard the attachment whose format is not supported.</td>
<td>14</td>
</tr>
<tr>
<td>Not Indicated</td>
<td>5</td>
</tr>
<tr>
<td>Do not keep attachments, discard them all.</td>
<td>3</td>
</tr>
</tbody>
</table>

These practices have serious implications on the organisations. Emails and their attachments as official records must be retained and managed securely in order to support regulatory compliance, avoid legal fines or litigation costs, and satisfying auditing requirements (Enneking, 1998). Failure to produce such documentation in a timely manner can result in severe court penalties or legal problems. Moreover, the actual process of searching unmanaged and unclassified emails can be enormous financial burden on organisations (Nelson & Ferris, 2002). The survey shows that due to the current practices in handling emails and their attachments (e.g. save email on personal folders on their systems, print and file hardcopy in personal files, etc), more than a quarter (26%) of the respondents have difficulties in retrieving stored emails and attachments.

### 4.5 Hindrance to Staff Compliance

A major hindrance to staff compliance is their unwillingness towards email management in their organisations. Often, they are aware of the importance of compliance, yet they fail to comply. The reasons for not being compliant mentioned include no time, tedious procedures, do not know what to do and complex policy and guidelines.

![Figure 5: Reasons for non-compliance](image)

Though many organisations have implemented RK and/or RM systems to manage the corporate emails, many staff are not using them because of tedious office procedures and lack of sufficient training to use these systems. So, it is high time that all organisations should take this problem seriously and provide enough training/guidance to staff and make sure all will compliance to organisations’ emails policy. The survey shows that of
the 49% of the respondents who were aware of their organisations’ RK systems, and 46% who were aware of their organisations’ RM systems, only 35% used the implemented systems to manage emails in their organisations. This is an interesting yet complex area worth exploring. Of the total, 12% (9) of the respondents used the recordkeeping system, while 5% (4) used the RM system. Another 18% (13) of the respondents used both the RK and RM systems as contrast to 25% (18) of the respondents who used neither. About 40% (29) of the respondents were not sure of the answer to this question.

5. STRENGTHS AND WEAKNESSES

The strengths that establish a strong foundation for organisations to build on the management of emails as official records in Singapore include the following:

- The majority of the organisations (72%) recognize emails as important business records. They have established adequate and appropriate written emails policy and guidelines defining use of email, and systems for managing them.
- The majority of the respondents (82%) recognize emails as being critical in their work and they practise compliant on their organisations’ emails policy, guidelines and technical considerations.

The major weaknesses that hinder the progress on the management of emails as official records in Singapore include the following:

- Lack of proper email management training (73%) is noticed. The majority of the organisations leave their staff to read up on the policy documents (57%) and comply with them. Providing access to the documents and leaving the staff to interpret their own meaning can lead to serious consequences such as misinterpretation and not doing the right things in emails management.
- About a third (33%) of these employees are still saving their emails and attachments to personal folders on their systems, printing and filing hardcopies in their personal files (25%), shared files (18%), and corporate servers (19%). This complicates the task of retrieving stored emails and attachments. Furthermore, central emails backup processes do not work properly because important emails become inaccessible.
- More than a fifth of the emails (22%) managed by the respondents is not related to work and comprises spam mails. As such, organisations are losing productivity time to manage such emails. Furthermore, some of their emails also contain redundant or worthless data that does not represent any value to the organisation, and thus can be eliminated.

6. SUGGESTIONS

Generally, organisations can do more to effectively and efficiently manage their email. In the survey, 44% of the respondents provided suggestions on how the employees can be motivated to be compliant with their organisations’ email policy, guidelines and technical considerations. These suggestions help to shed some light on the existing practices and are broadly categorised into the four different stages of the policy formulation process:
Stage 1 – Beginning Stage:
- Clear and concise policy (3%)
- Make email policy and guidelines transparent, prominent, simple and user-friendly, easily accessible (3%)
- Tie email compliancy with the daily work routine (3%)
- Impose penalty such as limit the mailbox storage size (9%)
- Setup proper email management systems (3%)

Stage 2 – Dissemination Stage:
- Emphasis from top managers (3%)
- Provide email management training (29%)
- Highlight the benefits of compliant and the consequences of non-compliant (6%)

Stage 3 – Monitoring Stage:
- Generate periodic reminders (3%)
- Conduct periodic audit and checks (6%)

Stage 4 – Disciplinary Stage:
- Warn those who are not compliant (6%)
- Punish those who are not compliant e.g. terminate their email account (3%)

One respondent felt that the organisation’s emails policy and guidelines must be fair to both the employers and employees. The policy must not only uphold the organisation’s interest but also the employees’ privacy rights as well. Only then, the employees will be motivated to be compliant. Another respondent highlighted that there is no way to make the employees fully compliant. He felt that any method implemented to motivate the employees to be compliant could only work to a certain extent. Partial compliancy is achievable while full compliancy is not. Out of all these suggestions, emails management training is more pressing requirement to more than a quarter (29%) of the respondents.

7. CONCLUSION

Email is no longer viewed as a second-tier communication channel in organisations. Emails serve as official records and potential knowledge assets in many instances to organisations. Though Singapore organisations are setting up of RM systems in their organisations for the management of their email messages, they are not paying equal attention to train their staff to manage their emails. The majority of the organisations are providing written instructions or informal briefings to their staff to manage their emails. With the result many staff is not compliant to their organisations emails policy and guidelines. This is negatively effecting on the organisation in long run. Because of poor emails management, organisation may not be able to find the required mails related to their business when the need arises. It is as good as not maintaining the emails in an organisation because the purpose of storing emails for long term preservation is not meeting in this case. So, regular training to their staff and also proving enough documentation to use will not only improve the present situation but also make the staff to compliance with organisations emails policy and guidelines. Once staff is compliance to emails policy, organisations can manage, search and retrieve emails as and when required for their business transactions.
REFERENCES


Appendix - A

Survey on Management of Emails as Official Records in Singapore: A Case Study

Dear Respondent,
I am a Master of Science (Information Studies) student at the School of Communication and Information of the Nanyang Technological University. I am working on a project on ‘Management of Emails as Official Records in Singapore: A Case Study’. I shall be grateful if you kindly fill up this questionnaire and send me back as early as possible. Your responses are kept confidential and used only for the research purpose.

Thank you very much for your time. Your participation in this survey will contribute greatly to the project.

Seow Bee Bee
SeowBB@hotmail.com

Section A: PERSONAL PROFILE
1. Name (optional):
2. Age:
   - <25
   - 25-30
   - 31-35
   - 36-40
   - 41-45
   - 45-50
   - >50
3. Gender:
   - Female
   - Male
4. Ethnic Background:
   - Chinese
   - Indian
   - Malay
   - Eurasian
   - Others if any, please specify
5. Profession:
6. Present position/Rank:
   - Top Manager
   - Middle Manager
   - First-Line Manager
   - Executive
   - Support/Operations
7. Which one of the following best describes your organisation?
   - Government (include Statutory Boards)
   - Automotive
   - Financial Services
   - Aerospace
   - Pharmaceutical, Healthcare
   - Consumer
   - Telecommunications
   - Computers, IT
   - Food
   - Insurance
   - Engineering
   - Power
   - Others if any, please specify
8. What is the staff size of your organisation?
   - 10 & less
   - 11-50
   - 51-100
   - 101-150
   - 151-200
   - 201-250
   - 251-300
   - 301-350
   - 351-400
   - 401-450
   - 451-500
   - >500

Section B: EMAILS MANAGEMENT
9. Are emails critical in your work?
   - Very
   - Fairly
   - Neutral
   - Not So
   - Not at all
10. On average, how many emails do you send/receive per day?
    Send:
    - 10 & less
    - 11-20
    - 21-30
    - 31-40
    - 41-50
    - >50
    Receive:
    - 10 & less
    - 11-20
    - 21-30
    - 31-40
    - 41-50
    - >50
11. What % of the emails send/receive by you contains attachments?
   - 10% & less
   - 11-20%
   - 21-30%
   - 31-40%
   - 41-50%
   - >50%
12. Breakdown in %, the emails send/receive by you, as shown in the categories below:

<table>
<thead>
<tr>
<th>Type of Email</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emails related to work</td>
<td></td>
</tr>
<tr>
<td>Emails not related to work</td>
<td></td>
</tr>
<tr>
<td>Spam mails (junk mails)</td>
<td></td>
</tr>
<tr>
<td>Others if any, please specify</td>
<td></td>
</tr>
<tr>
<td>Total %</td>
<td>100</td>
</tr>
</tbody>
</table>

13. How much time do you spent on managing your emails per day?
   - Half hour & less
   - 1 hour
   - 2 hours
   - 3 hours
   - 4 hours
   - >4 hours

Section C: EMAILS POLICY AND GUIDELINES
14. Does your organisation have a written emails policy and guidelines defining use of emails?
   - Yes
   - No (Proceed to Section D)
   - Not sure (Proceed to Section D)
15. How do you get to know your organisation’s emails policy and guidelines?
   - You have been trained in emails use and policies
   - Your colleague has briefed you
16. Is emails backup included in your organisation’s emails policy?

☐ Yes  ☐ No  ☐ Not Sure

17. In your opinion, how adequate are your organisation’s emails policy and guidelines in addressing the following issues?

<table>
<thead>
<tr>
<th>Issue</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Very Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emails are corporate records.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emails should be adequately managed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emails need to be managed within a recordkeeping/records management system.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emails should be appropriately disposed of depending on their value as records.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emails should be appropriately stored and protected.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18. To what extent are you compliant with your organisation’s emails policy and guidelines?

☐ Excellent (Proceed to Section D) ☐ Good  ☐ Fair  ☐ Poor  ☐ Very Poor

19. What is the reason for not being fully compliant?

☐ No Time  ☐ Tedious  ☐ Complex  ☐ Don’t know what to do  ☐ Others if any, please specify

Section D: TECHNICAL CONSIDERATIONS

20. Is there a corporate recordkeeping system in your organisation?

☐ Yes  ☐ No  ☐ Not Sure

21. Is there a corporate records management system in your organisation?

☐ Yes  ☐ No  ☐ Not Sure

22. Which system(s) do you use to manage/archive your emails?

☐ Recordkeeping System  ☐ Records Management System  ☐ Both  ☐ Neither  ☐ Not Sure

23. For emails that are identified as corporate records, do you: (‘✓’ Tick one only)

☐ Print and file hardcopy in your personal file.
☐ Print and file hardcopy in shared file.
☐ Save to personal folder in your desktop.
☐ Save to corporate server that is accessible by you and an identified group of persons.
☐ Save to corporate recordkeeping/records management system in your organisation.
☐ Others if any, please specify

24. In dealing with important attachments in emails, do you: (‘✓’ Tick one only)

☐ Always save the attachment in its original format, even if the format is not supported.
☐ Only save the attachment if the format is supported. Discard the attachment whose format is not supported.
☐ Always save the attachment in a format that is supported. This involves converting the attachment from a non-supported format to a format that is supported.
☐ Discard them all. Do not keep attachments.
☐ Others if any, please specify

25. In your opinion, what is the effort required retrieving stored emails and attachments?

<table>
<thead>
<tr>
<th>Your own:</th>
<th>Very Easy</th>
<th>Fairly Easy</th>
<th>Moderate</th>
<th>Difficult</th>
<th>Very Difficult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your colleagues’:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section E: SUGGESTIONS

26. In what ways do you think employees can be motivated to be compliant with the organisation’s emails policy and guidelines? Please write your suggestions here.

__________________________________________________________________________

Thank you very much for your time.