



ISSN: 0976-3031

Available Online at <http://www.recentscientific.com>

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 9, Issue, 7(B), pp. 27809-27811, July, 2018

**International Journal of
Recent Scientific
Research**

DOI: 10.24327/IJRSR

Research Article

THE EFFECT OF REGISTERED ELECTRONIC MAIL (REM) ON SUSTAINABILITY OF SMALL AND MEDIUM LEVEL OF ENTERPRISES (SME)

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DOI: <http://dx.doi.org/10.24327/ijrsr.2018.0907.2336>

ARTICLE INFO

Article History:

Received 11th April, 2018
Received in revised form 9th
May, 2018
Accepted 16th June, 2018
Published online 28th July, 2018

ABSTRACT

The use of paper is decreasing day by day. On the other hand the level of transactions are increasing conversely and that stimulates the use of paper. Yet paper use is not the only issue for the enterprises. On top of environmental concerns there are equally important issues such as energy use, work efficiency, data security and increasing cost of work places. This paper will focus and show the economical, environmental benefits of using Registered Electronic Mail (REM) and REM related products / services against the use of traditional methods on sending notices, legal notes, warnings between the companies and between the governing bodies and the enterprises. The study will not limit itself to replacement or subsidiary products of paper but at the same time it will focus on the pitfall of traditional way of doing some company functions such as Human Resources, document management, etc. The paper will focus on only the Turkish market and the local applications. In Turkey there are more than 3 million enterprises. Each year over 50000 of enterprise are establishing. There are also more than 1700 notary offices actively working throughout the Turkey.

Turkey has a new electronic mail system which is called Registered Electronic Mail (REM). The system providers established from the beginning of 2012. There are seven companies working as Registered Electronic Mail Service Providers. The study took Türkkep's services and products as a base for this study since the company provides the most value added, differentiated and unique products and services to the market.

On top of the Registered Electronic Mail (REM) there are products like electronic signature, REM Human Resource Process Management, REM Account reconciliation, REM & Electronic Document Management System, REM Export Incentive Application Process Management System, etc. These products and services are the key for sustainable enterprises especially on Small and Medium level since the SME's have always less resources to maintain their businesses compared to the Trans National Companies (TNCs), local holdings, big and developed companies.

The new way of working with Registered Electronic Mail (REM) will have a huge impact on diminishing security issues, time saving, efficient working, data storage, access speed to data, keeping valuable information safe and majorly on company costs.

The study was conducted within the current Türkkep company clients and users. The company has over 80000 clients. Therefore it brings a variety of clusters in each sector and in each level of enterprise. A group of randomly chosen clients were surveyed over the telephone. The questionnaire applied in this study is basically modelled as "likert scale". The "likert scale" model gave us the ability to extract more accurate results.

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INTRODUCTION

The new century brought us many different aspects of business life. The business life is changing rapidly. The progress and its acceleration are increasing day by day. The new way of doing business is always on the table. The data that we are

processing in our daily life are calculating with terabytes and above figures. The number of transactions are now in crucial amounts. The paper we use, the energy we need, the documents we produce are in huge amounts. Computers and the digitalization are standard part of our business life. We can't

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even think ourselves without computers or mobile devices. There is also huge need for efficiency in all areas of business.

The Registered Electronic Mail (REM) and REM related products are one of the important keys to bring efficiency, cost saving and positive contribution to environment. Therefore the paper will show the benefits and effects of using these products on enterprises especially the Small and Medium Level ones.

LITERATURE REVIEW

The European Telecommunication Standards Institute (ETSI) has set the rules in order to regulate the Registered Electronic Mails. As per the definitions state out; Registered Electronic Mail (REM) is recognized as legally valid and technically secure electronic mail. REM is the only tool that can provide e-document sharing via electronic mail as legally valid and technically secure and produce positive proof about these actions. Despite the standard electronic mails the sender and receiver are both valid and real identities that we will not left any hesitation. Since the identity of both corporate and individual REM owners are validated by the Registered Electronic Mail Service Provider (REMSP) on behalf of the governing or regulating authorities, the transactions are legally valid and secure. The REMSPs are hugely investing on hardware and security & cryptology softwares in order to keep up the required and set standards of ETSI.

Sustainability of SME's

The growth of the most economies are based on the number of Small and Medium Level of Enterprises (SME). The SMEs are the source of job creations and the equal distribution of resources. These companies also contribute significantly to GDP growth around the world and also ensure that there is proper flow of money across the economy. In fact, it is these SMEs that governments rely upon to boost growth in their economies. The biggest advantage of SMEs is that it provides employment to a whole host of people, who otherwise may not have got employed. SMEs will however thrive more when the economy does better as a whole. In case the economy is volatile, then SMEs face a risk of going under, as they all survive on a small budget. SMEs provide for boosting the level of economic growth in the country due to the extra revenue and employment that they generate. SMEs are also attractive for their clients as they provide special offers to encourage repeat business. These companies perform their activities at considerably reduced costs and so they are a very attractive way to outsource certain aspects of a company's production process. This also allows other companies to have some extra capacity, which they can use to employ more workers and enhance the scale of their production. Thus SMEs offer multiple advantages and are a great source of the growth of several countries around the world. Thus the number of SMEs are very important to tackle with the volatility of the economies. Therefore it is much more imperative to offer or apply the most efficient ways of doing businesses for SMEs.

There are more than 3 million initiatives active in Turkey. These enterprises are realising more than 50% of the total export and 40% of total import of Turkey. The internet access of these entities are more than 90%. The 96% of the enterprises are utilising Information Technologies. Thus we can say that they are all familiar with the IT infrastructure and willing to use in their businesses to increase the efficiency. For the

sustainability of the economy it is for sure that it should be keep the sustainability of the SMEs.

METHODOLOGY

Our methodology based on the products of the Türkkep. Since the starting of the compant it aimed on developing products that effects the quality of the business especially for the SME's. Türkkep is the leader of its sector. This is the reason of our selection. They produce the most efficient products. Within the clients which are over 80000 we choose randomly the 50 SMEs. A questionnaire also was designed and conducted to the target group via telephone conversation. The questionnaire basically focused "before/after" scenarios of the enterprises. The SMEs were selected from the ones that uses the products more than one year. The research aims to extract a result to measure the effect of the products that replaces the old traditional ones.

The products have two major source for use. The first one based on cloud computing where as the other one uses application set up on desk tops & mobile devices.

Limitations of the study

Four limitations are present and need to be considered when interpreting the results of the work done until now. These limitations are as follows: Time, finance, regulations and lack of information (know how, study, literature, expert, academician, etc). All the job were done by the company team. It could stated that the company were set the rules.

Sample and Data Collection

The data collection was based on random selection within the current portfolio of the 80000 clients. There was only one separation that defines the micro, small and the middle level enterprises. The random selection was done after clustering the clients according to the SME's definition that is just based on only the number of workers. The questionnaires were the only way to collect the data and answers.

Validity of the Work Done

It is the market place that ensured the validity. Testing the products marketability defined the validity of the work done. The demand level to REM, e-signature and other value added products showed the quality of the products thus the process and the method. The validity of the pre research based on the experience that faced and the market forced us.

Findings and Evaluations

As we described above, we use the Türkkep products as the base for the study. The list of products that will decrease the use of scarce sources are:

- Registered Electronic Mail (Türkkep KEP)
- Electronic Signature (Türkkep E-İmza)
- REM Human Resource Process Management (Türkkep KEP İK)
- REM Account Reconciliation (Türkkep KEP Mutabakat)
- REM & Electronic Document Management System (Türkkep KEP Asist)
- REM Export Incentive Application Process Management System (Türkkep Kepport)

The six major products are mainly serving to replace the traditional methods inside the enterprises. These are;

- The security concerns and the expenditures on softwares to keep the e-mail / data / document transfers safe and secure
- The legal validation of the processes
- The constitution of the legal proofs
- Keeping and storing the data
- The costs incurring from the use of Notary Offices
- The procedural correctness of the legal applications
- The time spend during the traditional ways.
- The money spend on the current methods.
- The amount of work force allocated to the related functions.
- The cost of the real storage space for the documents, etc.
- The cost of the illegally structured processes and mistakes happening unintentionally.

The definition of the SMEs are based on 3 variables. The number of workers, the total revenue and the balance sheet size are the determinants that defines micro, small and middle scale enterprises. After the calculations and questionnaires, it is evaluated that some major savings can be achieved for the topics written above. The average cost savings of SMEs are as follows.

Scale	# of workers	Average Saving*
Micro	Less than 10 workers	%35 - %40
Small	Between 10 and 49 workers	%50 - %64
Middle	Between 50 and 249 workers	%70

*compared to the current or traditional spendings

A micro level company can save up to 10K USDollars where as the savings of the Middle level enterprises could go up to 50K USDollars.

CONCLUSION

It is for sure that digital (REM & REM Related) products that replaces the traditional methods and doing businesses are bringing cost, time and other savings and efficiencies. The more the products used by the SMEs the more likely they will increase the use of or open to try the new methods that replaces the old ones. There are significant positive effects of using Registered Electronic Mail and related products. Considering the total number of SMEs Turkey can save up to 20 billion USDollars a year.

How to cite this article:

İsmail Çelik *et al.* 2018, The Effect of Registered Electronic Mail (Rem) on Sustainability of Small and Medium Level of Enterprises (Sme). *Int J Recent Sci Res.* 9(7), pp. 27809-27811.
DOI: <http://dx.doi.org/10.24327/ijrsr.2018.0907.2336>

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