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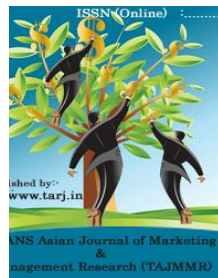
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**(Double Blind Refereed & Reviewed International Journal)**



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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

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## SELECTION OF GOOD VARIETIES AND HYBRIDS TO GROW PEKIN CABBAGE AS A REPEAT CROP

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### ABSTRACT

*The article provides information about Peking cabbage, names of different varieties and hybrids, biometric, phenolic, biochemical composition and technology of cultivation. The article contains information on the storage of many vitamins, carotene and other biologically active substances in pine caramel. It has been reported that this type of cauliflower has not been developed in the country, but has been developed not only for crops, diseases and pests, resistant to diseases and pests, breeding varieties and hybrids that meet the requirements of the modern market. Each region has a selection of suitable varieties or hybrids, and identifies the best ones in comparison to the previous ones. Because of its high levels of vitamins, amino acids, and other biologically active substances, 80 percent of the total population of vegetable species in the Northern provinces of China is wintered in winter. Therefore, it is necessary to define the most effective ones in comparison with the previous ones, to create suitable varieties or hybrids corresponding to each region. Hence, the Peking cabbage varieties are not only productive in the second crop, but also different from the quality of yields.*

**KEYWORDS:** Type, Plant, Harvest, Seedlings, Brandy, Pekin Cabbage, Hybrid.



## INTRODUCTION:

In recent years, many countries have been implementing programs for increasing and growing non-vegetable types of vegetable rich in biologically active substances.

It is known that vegetables contain more than a dozen vitamins, mineral salts, enzymes, phytoncides, and other biologically active substances, which work individually to increase people's longevity and ability to work.

In our country, great importance is attached to the increase of vegetable cultivation in order to improve the nutritional status of the population.

Included in the list include vegetable herbs, which are rich in nutrients for human health. [2]

Peking cabbage is an annual plant of cabbage originated from East Asia, China, Japan, and Korea. The productive part of it is a long cabbage head, which prepares various dishes and prepares salads, marinades and canned food.

Because of its high levels of vitamins, amino acids, and other biologically active substances, 80 percent of the total population of vegetable species in the Northern provinces of China is wintered in winter.

Currently, Beijing is growing 25% of the total vegetable cultivated in East Asia and Xindi-China. Larger areas are available in the US and European countries to cultivate this crop. In the cultivated vegetable country of Holland, cacao is grown on 1,000 ha.

It is well known that the productivity of any crop, the period of its production, its quality, and the cost of crop production, are largely dependent on the sowing or hybrid.

However, varieties created for certain soil-climatic conditions may otherwise not reflect their biological properties.

Therefore, it is necessary to define the most effective ones in comparison with the previous ones, to create suitable varieties or hybrids corresponding to each region.

Peking cabbage varieties or hybrids require a good, high-quality product at the same time, well maintained, resistant to the external environment, and resistant to disease and pest.

According to the conditions of cultivation, pine carbohydrates can be grown in grades and hybrids: early spring in protected premises, early maturing in summer and autumn, summer period (resistant to flourishing), winter period (under-light), grown in greenhouses.

## Main part: Methods. Methods of teaching

The State Register of Agricultural Plants, which is recommended for sowing on the territory of the Republic of Uzbekistan, includes the Xibinskaya Peking cabbage of 1988, and Cha-Cha and Yuki hybrids from 2005 to 2012. The Xibinskaya variety was taken as standard.

We have field experiments based on the plan and existing methodological exhibits at the OITP field in order to increase the varieties of these varied vegetable varieties in 2015-2017.

In the field experiments in 2015-2017, Xibinskaya st, Bokal, Jang Won F<sub>1</sub>, Cha-cha F<sub>1</sub>, Yuki F<sub>1</sub>, Seo Jin F<sub>1</sub>, Monoko F<sub>1</sub>, Koraenge F<sub>1</sub>, Chunchyubai F<sub>1</sub>, Za Jiao F<sub>1</sub> were studied.

The purpose of the research is to select varieties and hybrids of the highest and most varied varieties of pine caramel, which are suitable for reproduction in the Tashkent region.

The researches were carried out on the fields of Plant-Research Research Institute for 2015-2017. The experiment has 4 repetitions and the area of the adjacent area is 28 m<sup>2</sup>

In the experiment, standard Xibinskaya grade was tested against 10 cucumbers and hybrids of Peking cabbage. Seedlings were planted in a diameter of 70×30 cm in the first decade of August, 30 days old. The number of plants in the hectare is 47619. [5]

## EXPERIENCE RESULTS

The biological and biometric observations in the experimental field show one of the following results, Table 1.

**TABLE 1 THE NUMBER AND SIZE OF LEAVES OF PEKING CABBAGE VARIETIES (2015-2017 Y)**

| Varieties and hybrids      | The number of leaves in a bush |                             |       | The length of the longest leaf in cm, |                          |       |
|----------------------------|--------------------------------|-----------------------------|-------|---------------------------------------|--------------------------|-------|
|                            | Grain                          | To the standard relative to |       | The length of the leaf in cm          | to the standard relative |       |
|                            |                                | Num of grains               | %     |                                       | Num of grains            | %     |
| Xibinskaya st              | 24,4                           | -                           | 100   | 34,6                                  | -                        | 100   |
| Bokal                      | 18,5                           | -5,9                        | -24,1 | 33,4                                  | -1,2                     | -3,4  |
| Jang Won F <sub>1</sub>    | 31,8                           | 7,4                         | 30,3  | 39,6                                  | 5                        | 14,4  |
| Cha-cha F <sub>1</sub>     | 24,9                           | 0,5                         | 2,0   | 32,0                                  | -2,6                     | -7,5  |
| Yuki F <sub>1</sub>        | 28,1                           | 3,7                         | 15,2  | 29,7                                  | -4,9                     | -14,1 |
| Seo Jin F <sub>1</sub>     | 30,2                           | 5,8                         | 23,8  | 35,9                                  | 1,3                      | 3,7   |
| Monoko F <sub>1</sub>      | 28,7                           | 4,3                         | 17,6  | 37,2                                  | 2,6                      | 7,5   |
| Koraenge F <sub>1</sub>    | 31,0                           | 6,6                         | 27,0  | 29,3                                  | -5,3                     | -15,3 |
| Chunchyubai F <sub>1</sub> | 29,1                           | 4,7                         | 19,3  | 35,1                                  | 0,5                      | 1,4   |
| Za Jiao F <sub>1</sub>     | 30,4                           | 6                           | 24,6  | 35,3                                  | 0,7                      | 2,0   |
| EKTF 05 t/ha               | <b>1,88</b>                    |                             |       | <b>1,64</b>                           |                          |       |
| S <sub>x</sub> , %         | <b>3,77</b>                    |                             |       | <b>3,79</b>                           |                          |       |

As it turned out, the melon varieties of pomegranate cauliflower produce a variety of leaves before harvesting (Table 1).

Among the varieties of cauliflower, the most frets were found in the standard Xibinskaya varieties: Jang Won F<sub>1</sub> (31,8 pcs) and Koraenge F<sub>1</sub> (31,0 pcs). It was found that the number of leaves that formed these hybrids was 7,4-6,6 times higher than that of the standard Xibinskaya.

Bokal (18,5 pcs) has produced the least number of leaves than standard Xibinskaya.

The longest leaves were found in the varieties of the pine cabbage, which were produced by Jang Won F<sub>1</sub> 39,6 cm, Monoko F<sub>1</sub> 37,2 cm, Seo Jin F<sub>1</sub> 35,9 cm and Chunchyubai F<sub>1</sub> 35,1 cm. The largest leaves of the remaining varieties were found to be 1,2-5,3 cm shorter than the standard Xibinskaya barley length.

Thus, the varieties of pechene cauliflower and varieties differ in the number of free leaves that are formed.

The test was differentiated by the variation of the time varieties of the date varieties of the pomegranate cauliflower and the peanut formations and the first term. Table 2.

**TABLE 2 PEKING CABBAGE VARIETIES ARE THE STAGES OF GROWTH AND DEVELOPMENT (2015-2017).**

| Varieties and hybrids      | The time elapsed before the backbone begins to shape | The first term until | The head packing is in progress day | Date of first term | Last term date | The time passed before planting is about to mature |
|----------------------------|--|----------------------|-------------------------------------|--------------------|----------------|--|
| Xibinskaya st              | 80   | 120                  | 40                                  | 7/XI               | 23/XI          | 106  |
| Bokal                      | 67   | 105                  | 38                                  | 23/X               | 6/XI           | 89   |
| Jang Won F <sub>1</sub>    | 72   | 113                  | 41                                  | 31/X               | 16/XI          | 99   |
| Cha-cha F <sub>1</sub>     | 77   | 116                  | 39                                  | 3/XI               | 19/XI          | 102  |
| Yuki F <sub>1</sub>        | 82   | 119                  | 37                                  | 6/XI               | 23/XI          | 106  |
| Seo Jin F <sub>1</sub>     | 50   | 88                   | 38                                  | 6/X                | 19/X           | 71   |
| Monoko F <sub>1</sub>      | 62   | 102                  | 40                                  | 20/X               | 31/X           | 83   |
| Koraenge F <sub>1</sub>    | 65   | 102                  | 37                                  | 20/X               | 3/XI           | 86   |
| Chunchyubai F <sub>1</sub> | 78   | 117                  | 39                                  | 25/X               | 7/XI           | 100  |
| Za Jiao F <sub>1</sub>     | 73   | 110                  | 37                                  | 28/X               | 11/XI          | 94   |

It was discovered that the studied Brown cabbage entered the peak formation phase 30-2 days earlier than the standard Xibinskaya grade (Bokal, Seo Jin F<sub>1</sub>, Koraenge F<sub>1</sub>, Monoko F<sub>1</sub>, Jang Won F<sub>1</sub>, Cha-cha F<sub>1</sub>, Chunchyubai F<sub>1</sub>, Za Jiao F<sub>1</sub> varieties and Table 2).

Chunchyubai F<sub>1</sub>, Cha-cha F<sub>1</sub>, hybrids began to form blackberries almost in standard Xibinskaya varieties. As Yuki F<sub>1</sub> and Hyatt hybrids, it began to dash 2 days after the standard Xibinskaya variety.

It was found that the duration of the packaging was 37-41 days on varieties and hybrids, and the harvest time to the first harvest was 88-120 days.

It should be noted that when the cabbage form and the first term, the Peking cabbage grows early or late varieties and hybrids. Connection was determined.

The varieties of Peking cabbage cauliflower varieties and hybrids differ from each other by the yield of the leaves formed by the average and the surface of the cauliflower, but not at the time of the formation of the crab early or late, and until the coat's full formation.

**TABLE 3 THE YIELD OF PEKING CABBAGE VARIETIES (2015-2017 Y).**

| Varieties and hybrids      | Average weight of cabbage head, kg | General dress, t / ha |             |             |             | An additional product to the standard |       | Productive crop, p/c | The crop contains a product, %. |
|----------------------------|------------------------------------|-----------------------|-------------|-------------|-------------|---------------------------------------|-------|----------------------|---------------------------------|
|                            |                                    | 2015 year             | 2016 year   | 2017 year   | Average     | p/c                                   | %     |                      |                                 |
| Xibinskaya st              | 0,86                               | 35,8                  | 34,9        | 35,2        | 35,3        | -                                     | 100   | 29,8                 | 84,4                            |
| Bokal                      | 1,46                               | 64,3                  | 62,9        | 63,6        | 63,6        | 28,3                                  | 80,2  | 55,4                 | 87,1                            |
| Jang Won F <sub>1</sub>    | 2,07                               | 85,8                  | 86,6        | 88,4        | 86,9        | 51,6                                  | 146,1 | 77,6                 | 89,2                            |
| Cha-cha F <sub>1</sub>     | 1,22                               | 51,6                  | 48,5        | 51,4        | 50,5        | 15,2                                  | 43,0  | 43,0                 | 85,1                            |
| Yuki F <sub>1</sub>        | 1,35                               | 53,2                  | 55,5        | 55,2        | 56,3        | 21                                    | 59,4  | 48,6                 | 86,3                            |
| Seo Jin F <sub>1</sub>     | 2,12                               | 93,7                  | 92,5        | 92,8        | 93,0        | 57,7                                  | 163,4 | 83,3                 | 89,5                            |
| Monoko F <sub>1</sub>      | 2,09                               | 88,4                  | 90,5        | 90,2        | 89,7        | 54,4                                  | 154,1 | 78,8                 | 87,8                            |
| Koraenge F <sub>1</sub>    | 1,88                               | 78,9                  | 79,4        | 77,6        | 78,6        | 43,3                                  | 122,6 | 68,2                 | 86,7                            |
| Chunchyubai F <sub>1</sub> | 1,76                               | 75,7                  | 75,6        | 78,9        | 76,7        | 41,4                                  | 117,2 | 66,2                 | 86,3                            |
| Za Jiao F <sub>1</sub>     | 1,61                               | 69,5                  | 69,7        | 71,4        | 70,2        | 34,9                                  | 98,8  | 61,8                 | 88,0                            |
| EKTF 05 t/ha               | <b>0,18</b>                        | <b>1,38</b>           | <b>1,32</b> | <b>1,49</b> | <b>1,39</b> |                                       |       |                      |                                 |
| S <sub>x</sub> , %         | <b>2,6</b>                         | <b>1,99</b>           | <b>1,90</b> | <b>2,11</b> | <b>1,99</b> |                                       |       |                      |                                 |

The largest and most heavily weight resistant peanut among Peking cabbage cauliflower are Seo Jin F<sub>1</sub> (2, 12 kg), Monoko F<sub>1</sub> (2, 09 kg) Jang Won F<sub>1</sub> (2,07 kg), Koraenge F<sub>1</sub> (1,88 kg) shaped. It was found that the weight of cauliflower, produced from these varieties and hybrids, was greater than 1, 26 kg to 1, 02 kg of standard Xibinskaya carrier weight.

Cabbage heads were significantly higher than that of standard peking cabbage, which had a positive impact on the gross yield.

The highest yields of the Peking cabbage varieties tested in the second crop are Seo Jin F<sub>1</sub>, 57,7 tonnes per hectare, Monoko F<sub>1</sub> 54,4 tonnes, Jang Won F<sub>1</sub> 51,6 tonnes, Koraenge F<sub>1</sub> 43,3 tonnes, Chunchyubai F<sub>1</sub> 41,4 tons, and Za Jiao F<sub>1</sub> hybrid – 34,9 tons. Among the commodity groups in the gross product range are Seo Jin F<sub>1</sub> (89,5%), Jang Won F<sub>1</sub> (89,2%), Za Jiao F<sub>1</sub> (88%), Monoko F<sub>1</sub> (87,8 %), Bokal (87,1%), Koraenge F<sub>1</sub> (86,7%), Chunchyubai F<sub>1</sub>, Yuki F<sub>1</sub> (86,3%) and Chi-cha F<sub>1</sub> in hypertension (85,1%). The quality of these varieties and hybrids was higher than in the standard Xibinskaya, from 5,1 % to 0,7%.

Hence, the Peking cabbage varieties are not only productive in the second crop, but also different from the quality of yields.



Despite the fact that Peking cabbage is grown in the same conditions, the dry matter concentration is different from that of the other, Table 4.

The biochemical composition of the Peking cabbage varieties. Peking cabbage is an important nutritional product for human beings because it is a source of vitamins, organic acids, mineral salts, and aromatic substances. At the same time, they contain some proteins and carbohydrates.

The biochemical composition of Peking cabbage was determined by various methods in laboratory conditions.

**TABLE 4 THE BIOCHEMICAL COMPOSITION OF PEKING CABBAGE (IN 100G RAW MATERIALS). (2016).**

| Varieties and hybrids      | Dry matter, % | Ascorbic acid, % | Nitrates, % | Sugar, % | Protein, % |
|----------------------------|---------------|------------------|-------------|----------|------------|
| Xibinskaya st              | 11,3          | 46,8             | 111         | 5,0      | 2,7        |
| Bokal                      | 10,8          | 77               | 247         | 2,6      | 2,7        |
| Jang Won F <sub>1</sub>    | 11,0          | 48,2             | 99          | 4,9      | 2,8        |
| Cha-cha F <sub>1</sub>     | 11,5          | 52,5             | 122         | 5,0      | 3,2        |
| Yuki F <sub>1</sub>        | 12,2          | 51,6             | 137         | 6,0      | 2,9        |
| Seo Jin F <sub>1</sub>     | 8,3           | 79               | 104         | 3,3      | 3,3        |
| Monoko F <sub>1</sub>      | 6,8           | 31,9             | 220         | 4,1      | 2,6        |
| Koraenge F <sub>1</sub>    | 8,5           | 47               | 101         | 4,2      | 2,2        |
| Chunchyubai F <sub>1</sub> | 12,7          | 50,3             | 106         | 6,4      | 1,9        |
| Za Jiao F <sub>1</sub>     | 10,5          | 56,3             | 119         | 4,8      | 2,0        |

The dry matter was produced by Chunchyubai F<sub>1</sub> (12,7 mg%), Yuki F<sub>1</sub> (12,2 mg%) and Cha-cha F<sub>1</sub> (11,5 mg%), compared to standard Xibinskaya (11,3 mg%). The amount of dry matter contained in the remaining varieties and hybrids was significantly lower than that of standard Xibinskaya and ranged between 6,0-10,5 mg%.

### CONCLUSION:

The Peking cabbage begins to form the cabbage head of the Bokal, Seo Jin F<sub>1</sub>, Koraenge F<sub>1</sub>, Monoko F<sub>1</sub>, Jang Won F<sub>1</sub>, Cha-cha F<sub>1</sub>, Chunchyubai F<sub>1</sub>, Za Jiao F<sub>1</sub> varieties and hybrids 3-25 days before the standard Xibinskaya, Yuki F<sub>1</sub> started 2 days after the harvest.

The tested cauliflower varieties and hybrids formed their heads of weight from 0,36 kg to 1,26 kg relative to standard Xibinskaya grade.

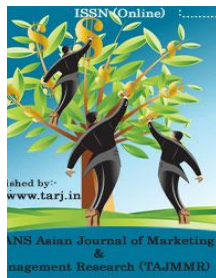
All varieties of cauliflower and hybrids yielded 163,4 to 43,0 percent higher in standard Xibinskaya.

In terms of dry matter, Chunchyubai F<sub>1</sub>, Yuki F<sub>1</sub> and Cha-cha F<sub>1</sub>, hybrids dominate Xibinskaya and other varieties and hybrids.

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## ROLE OF ONLINE BANKING TRANSACTIONS IN RURAL DEVELOPMENT: CHALLENGES AND OPPORTUNITIES

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### ABSTRACT

*The rise of the digital economy is driving the fourth industrial revolution. Modern banking is blurring the lines between physical, digital and biological spheres. The possibility of existence of knowledge gap is higher in rural regions which may slow down the emergence of new ventures although its extremity depends upon the types of ventures and the conditions under which they are developed. In our country there are many new online digital programme exits and many more programme yet to introduced and many of them have big potential for developing our rural India. We do not have adequate qualified farmers in rural area. We should provide good skills and knowledge to our farmers though short term training/development programme for handling developing rural people. Most of rural people have very short time period experience about online banking system and only 5% people have more than 8 years' experience of online banking transaction. After digitalisation of banking transaction there many changes happened like introductions of new technological devices etc.*

**KEYWORDS:** *Role, Online Banking and Rural Development.*

## INTRODUCTION

Banking system and digitalisation of banking transactions in rural India is very challenging job with many more opportunities. But before digitalisation we have to digitalise our commercial units in rural India whether they are agricultural farm house, shops and small & big industries in rural India. New start-ups are getting registered every day and that too in lots. But the question here is how many of them are for the improvement of rural India or how many of them are actually originating from the villages? The answer is quite difficult, isn't it! Being relatively unexplored to a great extent, rural India presents a wide range of opportunities to start and expand any business. But there are several challenges that are not allowing the upcoming start-ups to make the best use of it.

There should be organised milk shops in rural India where we can provide digital banking devices. In villages with agriculture activities, there is a livestock exit in rural India which is not organised. The rise of the digital economy is driving the fourth industrial revolution. Modern banking is blurring the lines between physical, digital and biological spheres. The possibility of existence of knowledge gap is higher in rural regions which may slow down the emergence of new ventures although its extremity depends upon the types of ventures and the conditions under which they are developed. Traditional banks turn to us to help them reduce costs and attract new customers with innovations like modernized web and mobile presence, mobile and desktop electronic banking, online scoring, bank as a service and the implementation of the channel approach or reaching the customers. Subsidies are also being provided by the government in rural areas but due to the high cost of finance, these subsidies are not giving fruitful results. Due to lower literacy rate of the people residing in rural areas they are not much familiar with the information technology and mostly rely on internal linkages that encourage the flow of goods, services, information and ideas. However the intensity of family and personal relationships can be helpful but they may also present obstacles for the effective business relationships as the local politics of the area 1038 Monika Sharma et al may sometimes create hurdles during making important decisions and thus create hindrance in growth of an enterprise. The rural entrepreneurial economy is an ecosystem of risk takers, capital providers, markets, technology and intermediaries that facilitate non – market transactions.

## REVIEW OF LITERATURE

There are many studies have been conducted on rural financial system in which some studies reports positive response and some of them have negative response.

ChinnaJ. (2013) explains in his research paper Regional Rural Banks were established in 1976 under the RRB Act, 1975 and the Regional Rural Banks Act, 1976 under the provisions of an ordinance promulgated on September 26, 1975 with an objective to ensure sufficient institutional credit for agriculture and non - agricultural sectors. The RRBs mobilize financial resources from rural and semi-urban areas, and grant loans and advances, mostly to small and marginal farmers, agricultural labourers, and rural artisans. For the purpose of classification of bank branches, the Reserve Bank of India defines a rural area as a place with a population of less than 10,000 people. The RRBs are jointly owned by the Government of India, the concerned State governments, and sponsor banks. The RRBs yielded positive results in respect of key performance indicators such as number of banks and branches, capital composition, deposits, loans, the trend of investments, current deposit ratio, recovery performance, productivity, NPAs, recovery and financial inclusion. The objective of this paper is to

study the performance of regional rural banks in India. Several committees have emphasized the need to improve the performance of these banks, which play an important role in the rural credit market in India. The study is diagnostic and exploratory in nature, and makes use of secondary data. The study found that the performance of RRBs in India has significantly improved over time, as steps for their improvement were initiated by the Government of India after the amalgamation process.

Showkat S. (2013) examines in his research Performance appraisal is a concept associated with Human Resource Management and by this association one concept of the broader concept of management. Much work has examined Performance appraisal practices from a critical stance and this paper provides a brief review with reference to two banking organizations of India viz, SBI and J&K Bank. The concept of performance appraisal is still emerging and finding space in both academic and practitioner spheres. This paper is an attempt to do the empirical evaluation of performance appraisal by applying some of the strands of critical thinking to performance appraisal practices and discourses.

Shrivastava P. & Rai U. K. (2012) explains in their paper banking sector is a fast growing sector of India. With swift expansion in the number of branches and the new functions assigned to them, banks are beginning to feel a new pressure on their organizational abilities. The processes of recruitment, placement, training, promotion and appraisal, in order to ensure that the right numbers of staff with the right capacities are available at the right time and for the right places. Appraisal is one of the key factors of organizational ability which is also the focus of this study. In simple words we can say that performance appraisal is an analysis of employee's recent successes and failures, personal strengths and weaknesses, and suitability for promotion or further training.

Jenyo G. K. & Adebayo O. (2014) states in their study of selected MFB in Kwara State was undertaken in order to assess their performance over time with a view to evaluate their objectives, structure, and practicability as it affects their operations. The study also describes the profile of customers and staff of MFB in the selected areas so as to know whether or not their input had affected the performance of the MFB. In the same vein, it examines and evaluates the causes of failure of those banks in the study area and suggested solutions to ameliorate the problems identified. The method of data collected was based on the use of both descriptive survey and analytical presentation the study revealed that generally the liquidity position of MFB was weak as it was about 0.96 in 2007 and 0.88 in 2008 as against 2.00 (i.e. standard recommended for the industry). Similarly, the debt equity ratio revealed that these banks rely heavily on borrowed capital; hence, if for any reason the creditors withdraw their funds, the banks would be faced with a situation of imminent collapse. Similarly, there are strong relationships between their capital base, liquidity stability and relative income. It is thus concluded, therefore, that there is the need for greater cooperation between the central bank of Nigeria (CBN) and Nigeria Deposit Insurance Cooperation (NDIC).

Sumachdar E. & Hasbi H. (2010) investigates empirically: (1) the effect of financial performance for Islamic Rural Bank to third party funds, and (2) compare the best financial performance through CAMEL between Islamic and Conventional Rural Bank. The population was all Rural Bank (Islamic and Conventional) which registered at Bank Indonesia as a Central Bank in Indonesia, Data analysis uses descriptive methods, multiple regression analysis and t-tests as a tool for testing hypotheses. The results showed that: (1) Variable ROA, NPF, OEOI partially significant effect on increasing of third party funds, except CAR and FDR. Simultaneously CAR, ROA, NPF, OEOI, and FDR significantly



influence to increase third party funds and (2) the financial performance of Islamic Rural Bank better than Conventional.

Sharma M., Chaudhary V., Rajni B. and Chauhan R. (2013) states in their research paper an emerging literature suggests that the distressed regions tend to be characterized by strong structures that may be mobilized as social capital for entrepreneurial activities. Entrepreneurship means the pursuit of opportunity without regard to resources currently controlled means that the entrepreneurship is a particular type of managerial behaviour that is available to virtually all managers in organizations of all kinds and sizes. The present paper examines the challenges observed for entrepreneurial activities in rural regions in developing countries such as that of India. Also the problems faced by the rural entrepreneurs for setting up of an enterprise in rural areas are discussed so as these problems may be carefully identified and rectified so as the resources available there are exploited which will also lower the migration of people from rural regions to urban cities in search of financial assistance by the generation of employment facilities. The steps taken up by the government for performance appraisal of rural entrepreneurship has also been listed.

Vasudevan S. & Ghaisas A. (2013) explained in their research paper Connectivity to banking services is major factor impacting sustainable and inclusive growth. Banking sector needs to function with a social conscious apart from business point of view if the economy has to come out of poverty and inequalities. Lot of initiatives has been taken on international level as well as on national front since independence, in India. Reserve Bank of India in collaboration with specialized financial institutions like NABARD has designed and implemented specialized efforts to enhance financial deepening and widening. The numerical targets set have been achieved to a large extent by banking sector in this regards. But the effectiveness of the task done and sufficiency of the efforts taken still needs to be deliberated.

Basweti Ogachi Kevin, Masese Chuma Benard and Martin Onsiro Ronald (2013) explained in their paper The banking sector across the globe is embracing ICT technologies and using as part of business strategy for expansion, revenue increase, extension of customer network and creating competitive advantage among banking institutions. This paper is an effort to investigate the impacts and challenges of ICT adoption in the Tanzanian banks. The population is forty eight respondents, four managers were selected from twelve banks and out of the 48 questionnaires distributed, 42 were collected i.e 87.5% response, purposive sampling was used and the data collected was analyzed using SPSS, the researcher employed use of mean and standard deviation. The study found out that there is a need for bankers to educate public in the use of online banking products, invest more into ICT infrastructure and the government to reduce tax of ICT gadgets. This study recommends that individual technologies need to be investigated, impact of adopting other individual technologies, profitability and performance issues should also be investigated to open up and clear the way for policy and business decisions.

### **OBJECTIVES OF THE PRESENT STUDY**

In the light of the domain for research identified so far, the following objectives have been set for the present study:

1. To find out the challenges faced by rural people towards online banking system.
2. To find out the opportunities for rural people towards online banking system.

3. To understand the role of online banking transaction as one of the key factors for enhancing digital payment habits.

## RESEARCH METHODOLOGY

In depth literature review and primary data from different rural people of district kurukshetra has been used to develop this paper. Sixty samples were selected under convenient sampling method and study was conducted during 2016-17. The analysis of the data collected was presented in tables. The response recorded accordingly and the scores counted in percentages for consigners decouple and comparison. Interpretations were given based on the result for the tables. Descriptive research design has been used in this study.

**TABLE 1: EDUCATIONAL BACKGROUND OF THE FARMERS IN RURAL AREA**

| Level of education | Frequency | Parentage % |
|--------------------|-----------|-------------|
| Matric             | 30        | 50          |
| 10+2               | 10        | 17          |
| 10+2 & Diploma     | 5         | 8           |
| Graduate/PG        | 2         | 3           |
| Illiterate         | 13        | 22          |

**Source: Field Survey 2016-17**

The above table 1 shows that we have 50% farmers those possess matric level education, 17% farmers have 10+2, 8% have 10+2 & diploma, 03 % have graduate/PG and 22% farmers in rural area are illiterate. It means we do not have adequate qualified farmers in rural area. We should provide good skills and knowledge to our farmers though short term training/development programme for handling developing rural people.

**TABLE 2: ONLINE BANKING TRANSACTION EXPERIENCE OF THE RURAL PEOPLE**

| Banking Experience | Frequency | Percentage |
|--------------------|-----------|------------|
| 1-2 years          | 30        | 50         |
| 3-5                | 20        | 33         |
| 5-8                | 7         | 12         |
| Above 8            | 3         | 5          |

**Source: Field Survey 2016-17**

The above table 2 shows that most of rural people have very short time period experience about online banking system and only 5% people have more than 8 years' experience of online banking transaction. After digitalisation of banking transaction there many changes happened like introductions of new technological devices etc.

## RESULT AND ANALYSIS

In the analysis of present paper we found that the initial time of present decade there is no more online transaction happened but after demonetisation period the rate of online transaction has been increased and force fully people use online transactions because of scarcity of currency particularly Rs. 500 and Rs. 1000 note. In this research paper we can see that the transaction increased after demonetisation period and rural people are using mobile and internet devices after getting awareness about them. Most of rural people have very short time period experience about online banking system and only 5% people have more than 8 years' experience of online banking transaction. we have 50% farmers those possess matric level education, 17% farmers have 10+2, 8% have 10+2 & diploma, 03 % have graduate/PG and 22% farmers in rural area are illiterate. It means we do not have adequate qualified farmers in rural area. We should provide good skills and knowledge to our farmers though short term training/development programme for handling developing rural people.

## SOME START-UPS FACTS

There are many start-up exits all over world but there is a big variance found among the countries of world some of them have many start-up programme but some counties is very backward in terms of start-up programmes.

**TABLE 3:- THE START-UP WORLD RANKING**

| THE COUNTRIES WITH THE HIGHEST NUMBER OF START-UPS |       |
|--|-------|
| USA  | 25505 |
| India  | 3766  |
| Indonesia  | 1513  |
| UK   | 1254  |
| Brazil   | 715   |
| Canada   | 656   |
| Australia  | 509   |

Source: -[www.startupranking.com](http://www.startupranking.com). Year 2017

The above table 3 shows the countries with the highest number of start-ups. Starts –ups, they are full of dreams and full of risk, but without them, the business economy would dry up. After all, today's start-up is tomorrow's mega corporation, providing that it succeeds. According to data of top 5 countries for start-ups in 2016 compiled by Coupofy in new info graphic, the countries with the highest number of start-ups are the united states (4.8 million), India (2 million) despite its historically poor economic standing, India has been able to embrace the internet age to create its own mini silicon valley-style hub in Bengaluru. Its entrepreneur are on average younger than anywhere else in the world and more than half of the new business are based on ecommerce and online services. One of its current major success ids flip-kart, an amazon– style web stores that's valued at dollar 15 billon the country's less regulations, low cost of living and tech-savvy citizens also make it attractive to foreigners looking to launch businesses overseas, the UK (845000), Indonesia (771000), and brazil (584000).

### **Lack of Adequate Training of Staff**

The concept of ecosystem also takes into consideration that the opportunities are not static and that Rural banking system in Developing Countries: Challenges, changing environmental conditions can sometimes create and destroy value chains. These problems are exacerbated in rural regions due to geographic distance, isolation and in the view of above the challenges and problems faced by the rural banking system in developing countries such as that of India are discussed which have to be overcome for successful implementation of self-employment. The possibility of existence of knowledge gap is higher in rural regions which may slow down the emergence of new ventures although its extremity depends upon the types of ventures and the conditions under which they are developed. Finance is considered as lifeblood of an enterprise. Most of the rural entrepreneurs fail to get external funds due to absence of tangible security and credit in the market. Besides this, the procedure to avail the loan facility is too time-consuming that its delay often disappoints the rural entrepreneurs. The challenges of agricultural growth in developing countries mostly include the lack of access to technology and infrastructure. It has been suggested that the barriers for the development of an enterprise is lack of interest, lack of coordination, disadvantage of geographic location for market access which results in high transportation cost etc. It is difficult for an entrepreneur to search for workers who are skilled enough and agree to work in rural regions. Also the family environment, society and support system is not conducive to encourage rural people to take entrepreneurship as a career which is mostly due to lack of awareness and knowledge of entrepreneurial opportunities. The rural entrepreneurs experience marketing problems and the major problem is standardization and competition from the large scale units. These large scale units also create difficulty for the survival of new ventures as they have limited financial resources and are bounded for spending limited finance on sales promotion. The traditionally bounded nature, cultural backwardness and cultural barriers add to the difficulty of communication where people in rural areas mostly communicate in their local dialects and English and Hindi are not understood by many people.

### **Deploy Talent and Resources Appropriately**

By using a performance appraisal system, you ensure that everyone keeps their projects on track based upon established goals that are aligned with company goals. Additionally, management has the tools to make informed business decisions based upon the completion or non-completion of these recognized goals. Why waste precious human capital pursuing goals not aligned with those of the company? This is a waste of resources that could be focused on contributions that lead to achieving true business goals.

### **RECOMMENDATION/ CONCLUSION**

We should provide good skills and knowledge to our farmers through short term training/development programme for handling developing rural people. Most of rural people have very short time period experience about online banking system and only 5% people have more than 8 years' experience of online banking transaction. After digitalisation of banking transaction there many changes happened like introductions of new technological devices etc. The main finding of the research supports the view that performance appraisal system should be HRD oriented. Besides being a base for making administrative and developmental decisions, performance appraisal can be useful instrument for

building a good relationship with employees of banking system, planning employee performance, discovering employee potential and improving organizational effectiveness.

### **SUGGESTIONS AND POLICY IMPLICATIONS:**

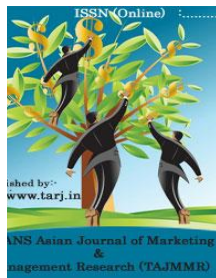
The survey results of both manager appraisers & appraises including rural people feel that banking & media should have an important role and accomplish a number of objectives vital to the rural development effectiveness. The research also shows that educational standard is an important tool in the management of human resources, which facilitates overall organizational effectiveness by defining performance tasks and goals, by providing avenues for the quality of informal and formal feedback, appraisal participation and grievance redresses mechanism, by setting clear performance standards and distributing rewards and other personnel and developmental decisions fairly and equitably with respect to the status of employees regarding their promotion, transfer, career planning, employee training and developmental needs, salary increases , termination or demotion. Therefore, rural development should be a key link in overall human resource management climate, strategy and its policies. The main implication of this research is that the management should involve manager appraisers & appraisers and non-managerial staff in overall performance planning and review processes.

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### LAMINARY FLUID FLOW IN A PIPE AND DIMENSIONAL NUMBER OF REYNOLDS

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#### ABSTRACT

*The article provides information on the mathematical modeling of the incompressible viscous fluid in the pipe. The study shows laminar and turbulent regimes of fluid motion, as well as the physical meaning of these regimes. Consider a straight round pipe with a diameter constant along the entire length. The flow rate on the walls of the pipe due to adhesion is zero, in the middle of the pipe, it has the greatest value. A cylinder with a characteristic length and a characteristic radius inside the liquid whose axis coincides with the axis of the pipe is considered, and the flow of the liquid through the cylinder is studied. The calculation formulas for calculating the maximum flow velocity in the cylinder, the volume of liquid passing through the cross-section of the pipe, the coefficient of resistance to friction in the pipe along the flow length, and the maximum value of the tangential stress are derived. The results of the comparison of empirical and semi-empirical formulas for calculating the coefficient of resistance to friction are presented.*

**KEYWORDS:** Reynolds number, laminar flow, turbulent flow, parabolic flow, the friction force is the integral coordinate of the pipe, viscosity, density, bulk flow velocity, average speed, maximum speed, radius, Gegen, Poissal, Darcy-Weisbach, the volume of fluid resistance coefficient

## INTRODUCTION

The flow of real fluids in many cases differs sharply from laminar flow. They have a special property called turbulence. In real flows, which occur in pipes, channels, and in the boundary layer with increasing values of the Reynolds number, the laminar form of the flow becomes turbulent. Such a transition from laminar to turbulent flow is called the occurrence of turbulence, and they play a fundamental role throughout hydrodynamics. Initially, such a transition was detected in flows occurring in straight pipes and channels.

In a straight pipe with a smooth wall and a constant cross-section, each particle of liquid at small Reynolds numbers moves along a straight path. Due to the presence of viscosity, the particles of the liquid close to the wall move more slowly than away from the wall. The flow moves in the form of ordered layers moving relative to each other. However, observations show that for large Reynolds numbers, the flow goes into an unordered state or goes into a turbulent flow. There is a strong mixing in the liquid; this can be seen by introducing paint into the liquid moving in the pipe.

In 1883, Osborne Reynolds, studying the movement of water in a circular pipe, found that with an increase in the flow velocity, the steady laminar nature of the movement is disturbed. Perturbations appear that are expressed in the fact that the previously rectilinear movement of fluid particles, laminar in some areas becomes erratic while maintaining the general direction of motion. A further increase in speed leads to chaotic motion throughout the flow. As is customary to say at present, the flow has turned from a steady-laminar into an unstable, disturbed-turbulent [2].

The presence of viscosity in liquids resists the movement of fluid layers relative to each other. In other words, in laminar (layered) flows, internal friction occurs due to viscosity; it is expressed by the number of tangential stresses at the boundaries of the layers, or is characterized by the number of tangential forces related to a unit area. Separate concentric layers of fluid relative to each other move in such a way that the velocity of the fluid will be directed in the direction of the main axis. The movement of this type of fluid is called laminar flow [1-12].

### Theoretical background

When the incompressible viscous fluid moves to start at the same value of the Reynolds number  $Re = \rho UL / \mu$ , the laminar flow passes into a turbulent one, the same value of the Reynolds number is called the critical Reynolds number, where  $\rho$  - density,  $\mu$  - viscosity of the liquid,  $U$  - the maximum velocity of the main flow,  $L$  - the characteristic scale of the length.

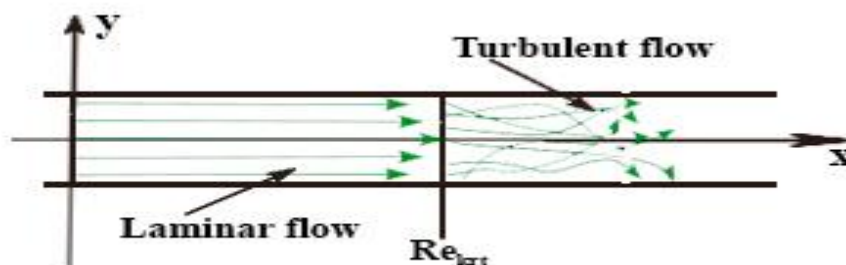


Fig. 1. The transition form laminar flow to turbulent

From Fig. 1. it is seen that at,  $Re < Re_{krt}$ , laminar flow, and  $Re_{krt} < Re$  and the flow goes into the turbulent mode.

In [2], information is given on the forces acting on flows in a cylindrical tube. We will consider the flow of a fluid in a straight circular pipe with a constant diameter over its entire length, inside of which are located a bundle of  $n$  tubes with a length  $L$  and a radius  $r$ .

In real liquids, the fluid adheres to the walls of the tube and transmits the shear stress to the surface of the streamlined fluid. Here the so-called internal friction force appears, in liquids this force is viscosity. Viscosity is such a property of gases and liquids, which is the resistance leading to the movement of liquids by external forces. The presence of tangential stresses and adhesion of liquids to solid walls leads to qualitative differences between real and ideal liquids. Now we study the movement of liquids in a pipe inside of which  $n$  tubes of the same length and radius are located. Taking into account the viscosity on the tube walls, the velocity is zero, reaches its maximum value in the middle of the tube. At a sufficiently remote distance from the tube entrance, the distribution of the flow velocity does not depend on the coordinate of the directional along the radius.

The movement of fluid in the pipe occurs under the action of a pressure drop in the direction of the pipe axis, but in each cross-section perpendicular to the pipe axis, the pressure can be considered as constant. The movement of each fluid element is accelerated due to pressure drop and slows down due to shear stress caused by friction [2-12].

The pressure  $p$  is assumed to be constant, that is, it is assumed that over the section of the tube  $p_0, p_l = \text{const}$  [3].

In the direction of the main axis, a pressure force  $p_0 n \pi y^2$  and  $p_l n \pi y^2$  applied to the inlet and outlet bases of the tube, respectively, as well as the tangential force  $2 \pi n y L \tau$  acting on the lateral surface of the cylinder, act on the tubes. It is required to determine the maximum flow velocity in the tube, the volume of fluid flowing through the cross-section of the tube, the coefficient of tube resistance to friction along the flow length, as well as the maximum value of the tangential stress.

Equating the forces acting fluid in the tube, we obtain as an equilibrium condition in the direction of motion the equation (Fig. 2.)

$$p_0 n \pi y^2 = p_l n \pi y^2 + 2 \pi n y L \tau . \quad (1)$$

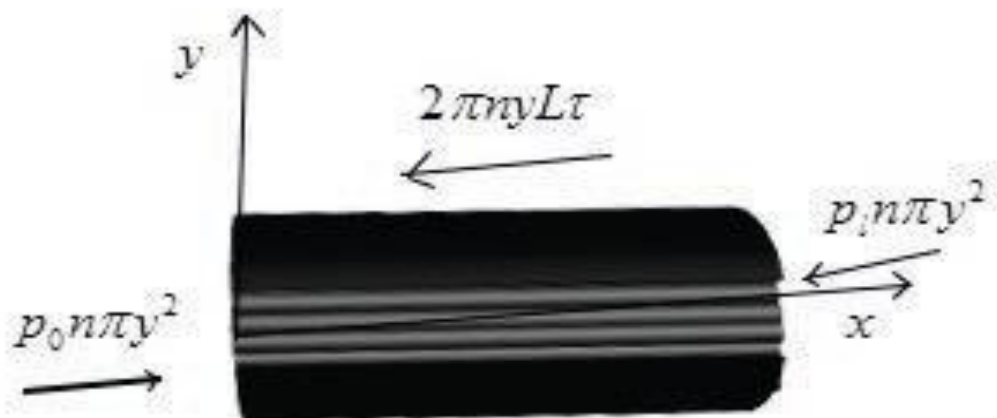


Fig. 2. In the tube is located a bunch of  $n$  tubes.

### Main part

The projection of the internal friction force is taken with a plus sign, because the velocity gradient is negative (the velocity of the layer decreases with increasing radius  $r$ )

From the formula (1) we determine the tangent stress  $\tau$

$$\tau = \frac{p_0 - p_l}{L} \cdot \frac{y}{2} . \quad (2)$$

In this case, the flow velocity  $u$  decreases with increasing coordinate  $y$  and is zero at  $y = r$ .

Therefore, by the law of friction  $\tau = \mu \frac{du}{dy}$  Hooke should take that  $\tau = -\mu \frac{du}{dy}$ . Substituting this expression in (2), we obtain

$$-\mu \frac{du}{dy} = \frac{p_0 - p_l}{L} \cdot \frac{y}{2} ,$$

from here, you can see that

$$\frac{du}{dy} = -\frac{p_0 - p_l}{\mu L} \cdot \frac{y}{2} . \quad (3)$$

Now, given that  $y = r$  with velocity  $u(y) = 0$  and integrating equation (3) with this initial condition we have

$$u(y) = -\frac{p_0 - p_l}{4\mu L} y^2 + C , \quad (4)$$



To determine the constant  $C$  of equation (4), use the condition  $u(r) = 0$  at  $y = r$ , or

$$u(r) = -\frac{P_0 - P_l}{4\mu L} r^2 + C = 0,$$

From here you can see that

$$C = \frac{P_0 - P_l}{4\mu L} r^2. \quad (5)$$

Substituting the value of the constant  $C$  from (5) to equation (4) we have

$$u(y) = -\frac{P_0 - P_l}{4\mu L} y^2 + \frac{P_0 - P_l}{4\mu L} r^2,$$

And in turn, we obtain an equation to determine the flow rate of the following formula

$$u(y) = \frac{P_0 - P_l}{4\mu L} (r^2 - y^2). \quad (6)$$

Thus, we have a parabolic velocity distribution along the radius of the pipe (Fig. 3.). The greatest value of speed is in the middle of the pipe ( $y = 0$ ), where it is

$$u_{\max} = \frac{P_0 - P_l}{4\mu L} r^2. \quad (7)$$

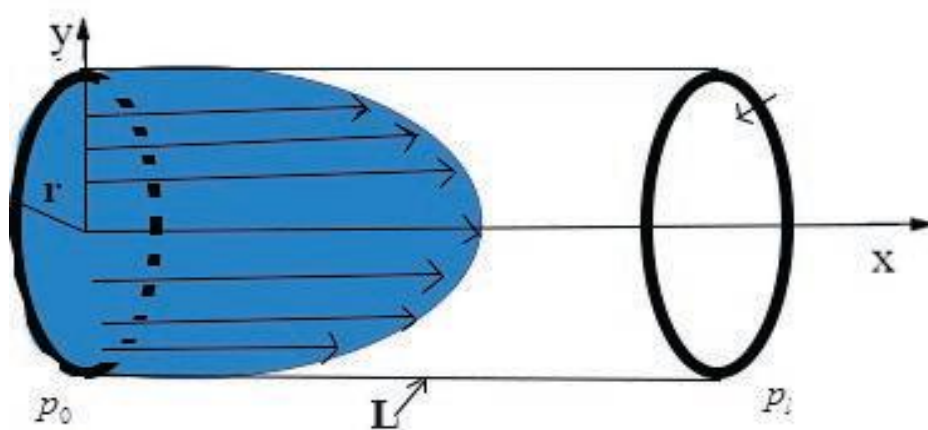


Fig. 3. The fluid flow rate for one tube

The total amount  $Q$  of liquid flowing through the pipe section (fluid flow) is defined as the volume of the paraboloid of rotation (Fig.3.), and acreage is defined as follows.

Equation (6) is rewritten as follows:

$$u(y) = \frac{P_0 - P_l}{4\mu L} (r^2 - y^2),$$

From here, you can see that

$$u(y) = \frac{p_0 - p_l}{4\mu L} r^2 \left( \frac{r^2 - y^2}{r^2} \right) = u_{\max} \left( 1 - \frac{y^2}{r^2} \right). \quad (8)$$

The total liquid flow through a tube with a circular cross-section by the Gagen- Poiseuille formula is determined as follows [1, 3,7,8,11,12]

$$Q = \int_0^r u(y) 2\pi y dy = 2\pi u_{\max} \int_0^r \left( y - \frac{y^3}{r^2} \right) dy = 2\pi u_{\max} \left[ \frac{y^2}{2} - \frac{y^4}{4r^2} \right]_0^r,$$

Or given the formula (7), for the flow of liquid have the formula

$$Q = 2\pi \cdot \frac{p_0 - p_l}{4\mu L} \cdot r^2 \cdot \frac{r^2}{4} = \frac{\pi(p_0 - p_l)r^4}{8\mu L}. \quad (9)$$

Enter the average flow rate, the values of which are determined by the cross section of the tube as follows:

$$\bar{u} = \frac{Q}{\pi r^2}. \quad (10)$$

Equation (10) with the formula (9) is written as

$$\bar{u} = \frac{(p_0 - p_l)r^2}{8\mu L},$$

By comparing the function  $\bar{u}(y)$  with the maximum speed  $u_{\max}$  determined by the formula (7), it can be seen that  $\bar{u}(y) = \frac{1}{2}u_{\max}$  or the average speed of the laminar flow in the tube is half the maximum speed (Fig. 4).

Determine the pressure difference  $(p_0 - p_l)$

$$p_0 - p_l = \frac{8\mu L \bar{u}}{r^2},$$

From here we have

$$p_0 - p_l = \frac{8\mu L \bar{u}}{r^2} = \frac{32\mu \bar{u}}{2r} \cdot \frac{L}{2r} = \frac{32\mu \bar{u}}{D} \cdot \left( \frac{L}{D} \right), \quad (11)$$

Here  $D = 2r$  is the diameter of the tube.

The pressure loss along the flow length is determined by the Darcy-Weisbach equation

$$\frac{p_0 - p_l}{n} = \frac{\lambda}{2} \cdot \rho \bar{u}^2 \left( \frac{L}{D} \right), \quad (12)$$

Here,  $\lambda$  -is the hydraulic loss ratio along the length of the pipe or the resistance coefficient of the pipe. From the last equation we have

$$\lambda = \frac{(p_1 - p_2)}{\frac{1}{2} \rho \bar{u}^2} \cdot \left(\frac{D}{L}\right) \quad (13)$$

Substituting  $p_0 - p_l$  the value of the formula (11) in the equation (13) we obtain, for the resistance coefficient of the pipe following formula

$$\lambda = \frac{32 \mu \bar{u}}{D} \cdot \left(\frac{L}{D}\right) \cdot \frac{2}{n \rho \bar{u}^2} \cdot \left(\frac{D}{L}\right) = \frac{64 \mu}{n \rho \bar{u} D}$$

or from here you can see that

$$\lambda = \frac{64}{n \text{Re}}, \quad (14)$$

Here is  $\text{Re} = \frac{\rho \bar{u} D}{\mu}$  - Reynolds number.

According to formula (14) to calculate the resistance coefficient, we present the results of calculations for various numbers of tube bundles  $n$ . (4 fig.).

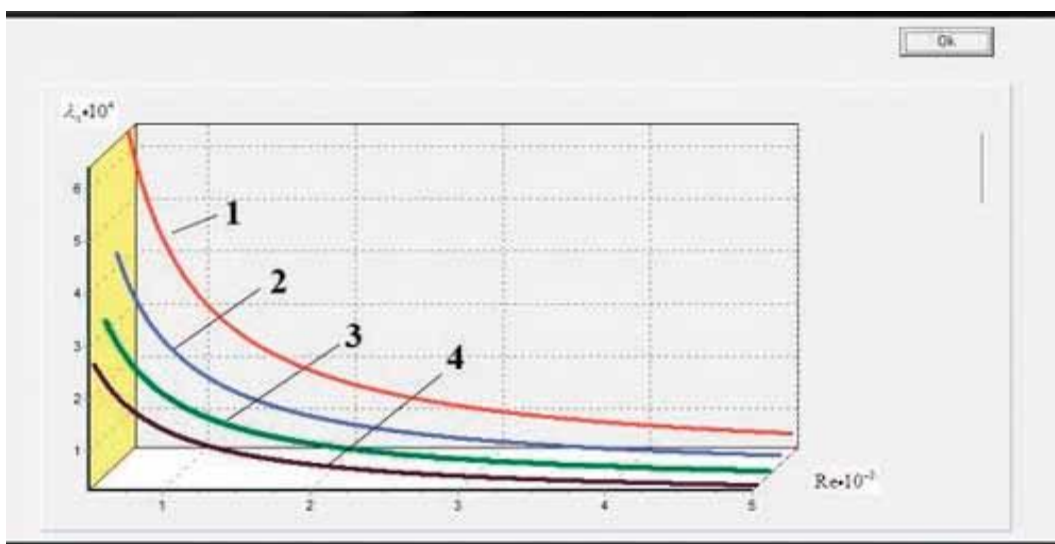


Fig. 4. The dependence of the resistance coefficient for smooth tubes on the number of tubes  $n$  and the Reynolds number  $\text{Re}$ : 1)  $n = 200$ , 2)  $n = 300$ , 3)  $n = 400$ , 4)  $n = 500$ .

Figure 4 for  $n$  smooth tubes shows the results illustrating the dependence of the resistance coefficient  $\lambda_n$  on the Reynolds number  $\text{Re}$ .

## RESULTS

A comparison of the obtained results shows that for all values of the Reynolds number the theoretical formula (14) holds. In computational experiments, the following range of variation of the characteristic parameters  $\text{Re}$  and  $\lambda_n$ :  $\text{Re} = 500 \div 5000$ ,  $\lambda_n = 0.0001 \div 0.0007$  was considered. From Fig. 4 it is seen that as the number of tube  $n$  increases, the resistance coefficient decreases.

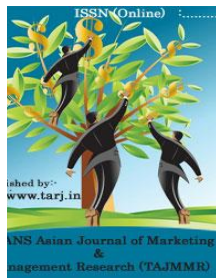
Thus, it is shown that the motion of incompressible viscous flows in channels, pipes and in the boundary layer can be laminar and turbulent, and the physical meaning of the appearance of these modes is indicated. For the fluid flowing through the tube  $n$  inside the tube, the formulas for calculating the maximum velocity of the fluid volume flowing through the cross section of the tube, the coefficient of tube resistance to friction along the length of the flow, are derived.

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## SERVICE QUALITY AND CUSTOMER SATISFACTION: AN EMPIRICAL ANALYSIS OF INDIAN LIFE INSURANCE

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### ABSTRACT

*Insurance services need to introspect sensitivity towards the quality of services offered in the current scenario of globalization,. In this context, this study examined the customers' perception on service quality offered by the life Insurance companies in and around Srinagar city. The SERVQUAL scale is administered to measure the commuter's perception on service quality. A survey was conducted among the commuters who were regularly availing insurance services. A random sample of 534 respondents were taken for data collection, among them 512 were finalized for final analysis. The study concluded that the service quality delivery meets the perception of commuters. In general, people of cities of J and K are benefited with the service quality delivery by Insurance Company. This paper brings out a service quality image which can be adopted by other cities whose population depends on services.*

**KEYWORDS:** Insurance, Services, Service Quality, Customer Perception, SERVQUAL

## 1. INTRODUCTION

Insurance is a compensation tool to safe guard the loss. Service quality is generally visualized as the sum of customer perceptions of the service experience (Johns,1992). The difference between service quality and satisfaction is perceived service quality is a global judgment, or attitude, relating to the superiority of the service. Whereas satisfaction is related to the specific transaction (Parasuraman, Valarie, Zeithaml& Berry, 1988). Customers form service expectations from many sources, suchas past experiences, word of mouth, and advertising. In general, customers compare the perceived services withthe expected service (Voss, Parasuraman& Grewal, 1998). If the perceived service falls below the expected service, customers are dissatisfied and if the perceived service quality is above the expected level, it creates satisfied customers (Andreassen, 1995). Marketers need to understand that customers are more than mere consumers of service quality output; they are co-producers of the quality process (Gronroos&Ojasalo, 2004).According to Berry, Parasuraman and Zeithaml (1988) service quality has become a significant differentiator and the most powerful competitive weapon (Clow&Vorhies, 1993), which many service organizations possess. Successful companies add benefits to their offering that not only satisfy customers but surprise and delight. Delighting the customers is a matter of exceeding expectations (Rust & Oliver, 2002).Insurance is defined as a cooperative device to spread the loss caused by a particular risk over a number of persons who are exposed to it and who agree to ensure themselves against that risk. Risk is uncertainty of a financial loss. The insurance is also defined as a social device to accumulate funds to meet the uncertain losses arising through a certain risk to a person injured against the risk.

According to the U.S. Life Office Management Inc. (LOMC), "Life Insurance provides a sum of money if the person who is insured dies whilst the policy is in effect." Insurance includes various types such life insurance, general insurance, health insurance etc. Public companies such as LIC of India and private companies such as bajaj Allianz Life Insurance Company, MetLife India, ICICI Prudential, Birla Life Insurance etc. Provide insurance services with an intention not to compete in the open market, rather their objective is to fulfill the needs of common public. As Insurance companies grow older and matured, the quality of service dwindles down with public being left with no option but to accept what is offered. To help this situation the concept of quality need to beintroduced into these companies for meeting the quality expectations of the public (Ancarani&Capaldo, 2001). Management of insurance companies have to take focused initiatives such as carrot and stick policy for the managerial cadre to perform better and encourage them with autonomy to act (Bryslan& Curry, 2001).Competitive advantage benefits customers and service quality is one of the mechanisms to achieve this (Clow&Vorhies, 1993). Service quality is recognized as one of the important areas on which public organizations including insurance services are focusing in present times (Ancarani&Capaldo, 2001). Hood (1995) in his research has revealed dimensions which lead to better quality in public services such as better experience management, adopting corporate style of functioning, bench marking activities, competitive based work environment, optimization and better planning of organizational resources, more focus on service quality output generation. Though service quality is an important aspect in insurance companies, there is very less research being done to explore this issue (Friman, Edvardsson, and Garling, 2001). Hence to a large extent it's a virginarea to investigate. Today people from across India and other parts of the world have

formed a major potential work force in J and K state. In such a scenario, systematic research aimed at measuring the consumers' perception on service quality offered by the insurance companies will be beneficial to consumers and service producers.

## 2. LITERATURE REVIEW

Research on service quality has been done from various aspects from a very long time, sufficient research has been contributed by (Gronroos, 1982; Berry, Zeithaml, & Parasuraman, 1985; Parasuraman, Zeithaml, & Berry, 1985; Zeithaml, Parasuraman, & Berry, 1985; Brady & Cronin, 2001) in developing the service quality concept. There is a need for conceptual changes to be built as the present concept of service quality does not fit the multidimensional situations across nations. (Cronin and Taylor, 1992; Brady and Cronin, 2001) in their study argued that there is a need to address multidimensional aspect of service quality. The issue of measuring service quality across several service sectors has been explored by researchers like (Parasuraman et al, 1985; Parasuraman, Berry, & Zeithaml, 1991; Koelemeijer, 1991; Cronin & Taylor, 1992; Vandamme & Leunis, 1993; Parasuraman, Zeithaml, & Malhotra, 2005). Though SERVQUAL as a measurement tool used in numerous studies, it was tailored to fit a particular sector and context, like E-S-QUAL for electronic sector and SERVPERF for service preference. Hence there is a scope for SERVQUAL to be further modified for universal standardization (Parasuraman et al, 1991). The issue of improving service quality whereby organization can derive competitive advantage has been investigated by (Reicheld and Sasser, 1990; Berry, Zeithaml, & Parasuraman, 1990; Hensel, 1990; Berry, Parasuraman, & Zeithaml, 1994; Berry & Parasuraman, 1997; Glynn & Brannick, 1998; Johnston & Heineke, 1998; Harvey, 1998). Service quality has been used as an ingredient in understanding consumer behaviour. A positive consumer behaviour on service quality will lead to higher returns (Zahorik & Rust 1992; Boulding, Kalra, Staelin, & Zeithaml, 1993; Zeithaml, Berry, & Parasuraman, 1996; Liu, Sudharshan, & Hamer, 2000). The framework for measuring service quality in insurance ref figure 1, envisages the generic dimensions tangibility, reliability, responsiveness, assurance and empathy given by (Parasuraman et al, 1988) model for measuring service quality. Population specific characteristics and insurance specific determinants influence the generic dimensions. Hence the construct of service quality measurement is modified to suit the present study context; Svensson (2004) in his study has laid the importance of customizing a particular model to match the study context.

Service quality in insurance constitutes of internal and external factors which affect the commuter's perception towards the services (Middleton, 1998a). Internal factors such as strategic issues (Lee, Lee, & Lee, 2006), top management commitment, service quality standards (Middleton, 1998b), monitoring systems (Deegan, 2002; Gray, 2002; Alexander & Short, Dec 1995/Jan 1996), customer complaints handling system (Kotler & Kavin, 2008) (Evans & Shaw, 2001; Michel, 1999), convenience and comfort (Regis, 1996), climate, ego, social status, professions (Sanchez, 1999). The possibility of demographic character based customer ratings of service performance can also be measured. Lim, Bennett, and Dagger, (2008) have identified the importance of demographic characteristics in measuring service quality. Demographic characteristics such as age (Kumar & Lim, 2008), income, education etc can be taken into consideration to measure the service quality and can receive different service performance

ratings. However, the bias seems to diminish when service fairness is considered. It appears that customer perceptions with regard to demographic characteristics are more powerful and important determinants of overall satisfaction. Customers expect justice in regards to fair service delivery. Interestingly, significance appears to exist between the opinions of customers across various demographical characteristics for service fairness (Snipes, Thomson, & Oswald, 2006). Service quality is also influenced by local or national culture of a particular country. Karen and Boo (2007) in their research have appealed to the researchers to add cultural dimension to service quality studies as the traditional SERVQUAL dimensions may not be meaningful in all situations and contexts. Culture is the epicenter of a society. It guides the way people live, think, behave, perceive things, and build attitudes. Plethora of research has been done on culture being a dimension having a significant effect on consumer behaviour with regards to service consumption (Mattial, 1999). Winsted (1997) had investigated dimensions related to behaviour of American and Japanese service consumption. In comparison to these both countries, Americans preferred quality, delivery and cooperativeness, Japanese preferred coordination and customization. Cross-cultural consumer behaviour shows exhibition of different attitudes, countries which are developing like India, where consumers are low on registering complain, since they are not exposed to higher quality in any walk of their life. Countries which are developed like USA, where high quality is the order of life, consumers won't compromise on quality issues, they tend fast towards complaining. Liu and McClure (2001) focused their research in studying cultural differences in consumer behaviour and found similar outcomes. Malhotra, Ulgado, Agarwal, and Baalbaki, (1994); Malhotra, Ulgado, Agarwal, Shainesh, and Wu, (2005) has proved that there is a difference of perception on service quality among customers in developing and developed nations, they have identified ten factors related to social, cultural and economic environment which play role on customers assessment of service quality perception. The pioneering study done by Hofstede (1991) in which he had studied about national cultures in line with four service quality dimensions of competence, communication, credibility and courtesy. The study also took into consideration two cultural dimensions as power distance among organizations and presence of individualism or collectivism in the society. Data was collected from a large sample of above one hundred thousand employees of IBM across seventy two countries, twenty languages and duration was from 1967 to 1973. Paul and Alain (1996) have tried to explore the culture issue of service quality. They assessed the service quality using SERVQUAL on ten variables: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/knowing the customer, and tangibles. The study was conducted to compare the service quality among customers of border areas of Mexico and America. They have found significant differences existing among customers of Mexico and America in relation to service quality. Five dimensions as suggested by the researchers were taken for the study as tangibility, reliability, responsiveness, assurance and empathy. In a particular study Kang and James (2004) have identified that the five dimensions of SERVQUAL are important for measuring the service quality delivery. Using these generic dimensions the service quality scale developed by (Parasuraman et al., 1988) was modified to suit to the present study subject by adding sixth dimension as "culture". Collectivism identified by (Hofstede, 1991) was considered as a cultural aspect for this study, collectivism highlights the importance and respect of overall group behaviour rather than individual. The group exhibits integrity in

collectivistic values which influence the service design and service delivery. A study done by Rugimbana (2007) in Malaysia on youth revealed that young population(collective) has three individual groups Chinese(Confucius), Indian and local Malya. He found that there was significant influence of collective values in the adoption banking services. The potential application of SERVQUAL scale is, it can help a wide range of service organizations in assessing perceptions of service quality (Buttle, 1996). It can also help in identifying areas requiring managerial attention and action to improve service quality (Ketinger& Lee, 1997). Managerial implication given by Kang, James, and Alexandris, (2002) reveals that SERVQUL will enable managers to measure the internal service quality and external service quality, so as employees understand their role in delivering quality to customers. In addition, the availability of this instrument will stimulate much-needed empirical research focusing on service quality and its antecedents and consequences.

### **OBJECTIVES OF THE STUDY**

The present study focused on the following objective.

1. To measure and assess the level satisfaction of service quality of Life Insurance,
2. To suggest the measures to improve the services quality in Life insurance.

### **RESEARCH METHODOLOGY**

Initial instrument was developed by generating 28 items after a thorough understanding of conceptualization and operationalization of the service quality construct in insurance companies and Kstate . The SERVQUAL developed by (Parasuraman et al., 1988) was adopted to prepare the initial instrument. The first part of the questionnaire was left with four items relating to tangibility factor, second part with five items relating to reliability factor, third part with four items relating to responsiveness factor, fourth part with four items relating to assurance factor, fifth part with five items relating to empathy factor and sixth, the last factor with six items relating to cultural factor. All the closed-ended questions were designed to generate responses on a five point Likert scale to measure the perception of service quality indicated as 1 strongly disagree, 2 disagree, 3 neither or nor, 4agree and 5 strongly agree. Cui, Lewis, and Park, (2003) in a study measuring service quality using SERVQUAL with five dimensions have achieved successful results using liker scale with seven point scale, however for the present study five point likert scale is used since respondents are intercepted at insurance offices, hence to reduce the time of response and make respondent more comfortable The measurement scale was developed, as suggested by (Stafford, 1999; Akan, 1995) that SERVQUAL need to be modified to suit to a particular industry context. Hence in the present study culture as sixth dimension has been added ref figure 2. Quantum of research in SERVQUAL is done, and in many research studies it is established that the generic SERVQUAL scale has to be extended with new dimensions, (Boulding et al., 1993; Cronin & Taylor, 1992; Parasuraman et al., 1991;2005; Zeithaml et al., 1996). Majorly the SERVQUAL model has been used tested and enhanced within the United States. In India few studies have been conducted by (Malhotra et al., 2005; Satyabhusan, Ed, &Kalyan, 2009). For the present study a pilot study was initiated with a sample of 45 respondents which resulted in the elimination of two items leaving 26 items spread across five service quality dimensions : tangibility three items, reliability three items, responsiveness



five items, assurance five items, empathy five items and culture five items. A sample size of 534 was taken to meet the sample adequacy, for conducting factor analysis number of statements multiplied by ten (26 statements \* 10 = 260) is minimum required sample size, this study had considered double the minimum required size. The sample respondents for the study were selected from the population by convenient sampling method because of easy accessibility and affordability. Yu, Hong, Gu, and Wang, (2008) has used this method of sampling in a study relating to people opinion on public library system. This study is limited to a particular public operation service provider and none of the private players were taken into consideration. Survey method was used for collecting primary data at select insurance offices from the consumers who deposit their premium instalment. 512 completely filled in questionnaires were finalized, non response rate was negligible. Adequate care has been taken to avoid redundancy in data collection from the sample elements

### **Scope of Research**

This study largely focused on SERVQUAL being the measurement tool for measuring the service quality. Its scope is confined to life insurance of Srinagar city only. As such life insurance is an essential service in a large number of nations, hence a custom made scale measuring service quality can be developed. Culture was taken as part of this study and was not fully explored, since there can be other variables like values, ethos, individualism, language etc which tend to influence service quality, further research can be extended to fully exploit the cultural and related aspects. Further longitudinal studies can be done at regular time intervals over the years to reinforce the arguments. A comparative study can be aimed between public and private companies' services. Further it can be extended to semi-urban and rural area to obtain their perception too.

### **3. DATA ANALYSIS**

#### *Respondents Profile*

Out of the complete questionnaires filled in 53.5% were males and 46.5% females. The percentage difference between male and female respondents is less; this is due to male-female population ratio in the state being almost close. 37.2% of the respondents were in less than 25 age group, 34.6% were between 26-35 age groups, 17.4% were between 36-45 age group and 10.8% were above 45 age group. The percentage of first group, that is less than 25 age and second group between 26-35 age amounts to 71.8%, which is due to higher percentage of younger population in city. 65.8% have responded that they were unmarried and 34.2% were married. The high percentage of unmarried respondents is due to the average marriage age in urban the state is between 30-32, since it takes longer years for a male and females to economically settle down. With regards to educational qualifications 64.5% reported to be post-graduates, 28.3% to be graduates and 7.2% being other qualification. In Kashmir, the education of children is financially and morally supported by their

respective parents, added to it, the social stigma is higher education-higher social status; hence finding more post-graduates in urban India is the deal. In terms of employment status 44.3% were professionals, 39.7% were students, 9.1% were wage employees, 4.6% were self-employed and 2.3% were others.

### *Factor Analysis*

Factor analysis was identified as tool to identify suitable dimensions and related items. Data was analyzed using principal component extraction with an orthogonal (varimax) rotation; a factor loading benchmark of 0.4 was used for validity. This criterion has eliminated tangibility ref figure 2 and retained other five factors with 23 items. Ten items have relocated in this study ref table 1, it shows that the item employees in insurance companies area consistently courteous with you relocated from dimension assurance to reliability. Similarly, the behaviour of employees in these companies instills confidence in you, employees in insurance companies have the knowledge to answer your questions and company insists on error free records were relocated from assurance and reliability to responsiveness and respectively; employees in there tell you exactly when services will be performed and employees give you prompt service, insurance companies have operating hours convenient to all its customers have relocated from reliability, responsiveness and empathy to assurance. Company employees are neat appearing and when you have a problem they show a sincere interest in solving it relocated from tangibility and reliability in the situation

The alpha coefficients of these five factors are 0.9332, 0.9012, 0.9142, 0.8994 and 0.9630 respectively (ref table1). These results indicate that the four factors are reliable (Nunally, 1978). This supports the internal cohesiveness of the items forming each dimension.

### *Validity*

The validity of the instrument was tested using correlation and regression analysis. The Pearson correlation coefficient between the overall service quality (OSQ) and the five dimensions of the instrument are shown in table 2. Table 2 shows that all coefficients are significant at the 0.001 level. This supports the validity of the instrument. Regression analysis was also conducted for the purpose of validity. The regression model has the following form: Totality (Reliability; responsiveness; assurance; empathy; culture): The summary of the regression results are shown in table 3It can be seen from the results provided in table 3 that the R-square is 0.716. This indicates that the five independent variables explain 71.6 percent of the variations in overall service quality. This R-square is significant at the 0.001 level. The resulting regression model is: Totality (0.102 + 0.241(reliability) +0.202(responsiveness) + 0.247 (assurance) + 0.227(empathy) + 0.298(culture). Table 3 shows that the coefficients of the dimensions of reliability, responsiveness, assurance, empathy are significant at the 0.01 level, while the coefficient for culture is significant at the 0.05 level. This supports the validity of the questionnaire (Webb et al. 2000). This also stresses the importance of customizing measures of service quality to different contexts and countries. Students, 9.1% were wage employees, 4.6% were self-employed and 2.3% were others. This indicates that majority of the respondents are engaged in professional work, India is one of the countries producing more number of Engineers, Doctors, MBA's, MCA's, and other Masters programs. 62.7% of the respondents reported they were using from last 2 to 5 years, 21.4% were using for more than 5 years and 15.9% where using from less than 2 years

### *Factor Analysis*

Factor analysis was identified as tool to identify suitable dimensions and related items. Data was analyzed using principal component extraction with an orthogonal (varimax) rotation, a factor loading benchmark of 0.4 was used for validity. This criterion has eliminated tangibility ref figure 2 and retained other five factors with 23 items. Ten items have relocated in this study ref table 1, it shows that the item employees in offices consistently courteous with you relocated from dimension assurance to reliability. Similarly, the behaviour of employees in there instils confidence in you, employees in offices have the knowledge to answer your questions and they insists on error free records were relocated from assurance and reliability to responsiveness and respectively; Insurance services are punctual, employees in there tell you exactly when services will be performed and employees in there give you prompt service, Companies have operating hours convenient to all its customers have relocated from reliability, responsiveness and empathy to assurance. Company's employees are neat appearing and when you have a problem they shows a sincere interest in solving it relocated from tangibility and reliability to in the Indian situation. In a similar study by (Pe´rez et al., 2007) the results of factor analysis has relocated items among dimensions. The alpha coefficients of these five factors are 0.9332, 0.9012, 0.9142, 0.8994 and 0.9630 respectively (ref table1). These results indicate that the four factors are reliable (Nunally, 1978). This supports the internal cohesiveness of the items forming each dimension. PTS gives attention to women, children and handicapped had relocated from empathy to culture. Hence the items prescribed in the SERVQUAL scale under each dimension developed by (Parasuraman et al., 1988) are not directly applicable

### *Validity*

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**TABLE 1 RELIABILITY COEFFICIENTS WITH RETAINED DIMENSIONS AND ITEM RELOCATION**

|  | Initial dimension to which these item belong | Factor loading | Mean value of individual items and (dimensions) |
|--|--|----------------|---|
| <b>Reliability(alpha = 0.9332)</b>                                   |  |                | (1.734)   |
| When company promises to do something by a certain time, it does so. | Reliability                                  | 0.639          | 1.844   |
| Company performs the service right the first time.                   | Reliability                                  | 0.662          | 1.746   |
| Employees in company consistently courteous with you.                | Assurance                                    | 0.535          | 1.612   |
| <b>Responsiveness(alpha = 0.9012)</b>                                |  |                | (1.816)   |
| Employees in company are always willing to help you.                 | Responsiveness                               | 0.761          | 1.931   |
| Employees in company are never too busy to respond to your request.  | Responsiveness                               | 0.797          | 1.745   |
| Company insists on error free records.                               |  | 0.849          | 1.741   |
| The behaviour of employees in company instils confidence in you.     | Reliability                                  | 0.612          | 1.917   |
| Employees in company have the knowledge to answer your questions.    | Assurance                                    | 0.664          | 1.750   |
| <b>Assurance(alpha = 0.9142)</b>                                     |  |                | (1.764)   |
| You feel safe in your transactions with your company.                | Assurance                                    | 0.797          | 1.712   |
| Services of your company are punctual.                               |  |                |   |

|  |                |       |         |
|--|----------------|-------|---------|
| Employees in company tell you exactly when services will be performed. | Reliability    | 0.770 | 1.704   |
|  | Responsiveness | 0.694 | 1.771   |
| Employees in company give you prompt service.                          | Responsiveness | 0.661 | 1.790   |
|  | Empathy        | 0.549 | 1.846   |
| Company has operating hours convenient to all its customers.           | Empathy        | 0.549 | 1.846   |
|  | Empathy        | 0.549 | 1.846   |
| <b>Empathy(alpha = 0.8994)</b>   |                |       |         |
| Employees give you personal attention.                                 |                |       | (1.332) |
| Company has your best interest at heart.                               | Empathy        | 0.691 | 1.299   |
| The employees of company understand your specific needs.               | Empathy        | 0.531 | 1.477   |
|  | Empathy        | 0.762 | 1.001   |
| Companies's employees are neat appearing.                              |                |       | 1.001   |
| When you have a problem, they show a sincere interest in solving it.   | Tangibility    | 0.774 | 1.345   |
|  | Reliability    | 0.894 | 1.541   |
| <b>Culture (alpha = 0.9630)</b>  |                |       |         |
| Company respects the local culture                                     |                |       | (1.689) |
| Company works for the welfare of society                               | Culture        | 0.786 | 1.612   |
| Company is in line with local values                                   | Culture        | 0.616 | 1.750   |
| Company has the good image among local population                      | Culture        | 0.733 | 1.801   |
|  | Culture        | 0.961 | 1.745   |
| Company gives attention to women, children and handicapped.            | Empathy        | 0.747 | 1.841   |



**TABLE 2 CORRELATION COEFFICIENT VALUES**

| Dimension                             | Overall service quality (OSQ) |
|---------------------------------------|-------------------------------|
| Reliability                           | 0.822*                        |
| Responsiveness                        | 0.877*                        |
| Assurance                             | 0.784*                        |
| Empathy                               | 0.819*                        |
| Culture                               | 0.865*                        |
| Note: * Significant at the 0.01 level |                               |

**TABLE 3 RESULTS OF REGRESSION MODEL**

| Model  | Beta  | t     | Sig.  |
|--|-------|-------|-------|
| (constant)   | 0.102 | 0.663 | 0.651 |
| Reliability  | 0.241 | 5.014 | 0.001 |
| Responsiveness   | 0.202 | 4.004 | 0.000 |
| Assurance  | 0.247 | 3.115 | 0.000 |
| Empathy  | 0.227 | 3.008 | 0.000 |
| Culture  | 0.298 | 3.472 | 0.004 |
| Notes: R square = 0.716, F = 108.371, sig. level = 0.000 |       |       |       |

## 5. CONCLUSION

The aim of this study is measuring the commuter perception on service quality in insurance companies using SERVQUAL, at the same time it also insists on the extension of generic SERVQUAL dimensions with additional dimension representing the study context. Culture as a new dimension was added (Paul and Alain, 1996; Malhotra, Agarwal, & Peterson, 1996; Malhotra et al., 1994; Malhotra et al., 2005; Mattila, 1999; Winsted, 1997; Liu and McClure, 2001; Karen and Boo, 2007; Satyabhusan et al., 2009) have identified culture to be an important aspect in measuring service quality context. Insurance services are no exception, (Pe´rez et al., 2007). In

the initial phase of understanding the operational and strategic issues involved in insurance companies, researchers had taken the help of marketing managers of various companies, the session has thrown light on culture being a part of service design, hence its inclusion into the study was established. The thought process on the instrument development resulted in six dimensions and twenty eight items, a pilot study with forty five respondents resulted in the elimination of two items, bringing the item count to twenty six. Data is finalized from five hundred twelve questionnaires. Factor analysis was used to analyze the data resulting in the elimination of one dimension. Tangibility and three items, further bringing down the item count to twenty three; this revealed that the remaining dimensions are reliable and valid. In several service quality measurement studies done by (Parasuraman et al., 1988; Parasuraman et al., 1991; Parasuraman et al., 2005; Sahu, 2006; Snipes et al., 2006; Stafford, 1999; Vandamme & Leunis, 1993; Yu et al., 2008) the scale refinement was done resulting in elimination of some items and dimensions. Based on the regression model, it was assessed that culture is one of the important dimension of service quality in this sector. This exposes that measuring service quality using SERVQUAL need to be modified under different study contexts.

The personal and demographic profile of the consumers indicate that majority of the service users are professionals belonging to the middle aged; monthly income is reasonably well and insurance potential is enough. Most of the commuters are using the service over a considerable number of years. As we compare the individual statements, employee's willingness to help and behaviour instilled confidence are given the highest preference, which is true in the Srinagar city. consumers often want to know more about their policy benefits, most of the times s also expect insurance services at convenient places so as they can get easily information about their policy. The next set of statements receiving higher scores are timely promised services and convenient operating hours, as Srinagar city is densely populated, huge employee and business population is interested in these services

Buttle, 1996; Cui et al., 2003; Parasuraman et al., 1988) tangibility was found to be the most important dimension, but this study reported it in reverse. Comparison of means of dimensions indicates that responsiveness assurance, reliability, culture and empathy form the order. The research reveals that the expectations of the commuters in terms of service quality are delivered by companies. In this competitive global business environment, the consumer expectations are ever increasing, the service providers can meet the expectations only if they are sensitive to customer issues. Thus, the insurance companies must understand the core responsibility of providing reliable services to the consumers consistently, which will yield better results in terms of service quality.

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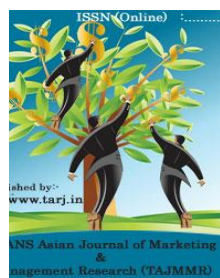
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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

(Double Blind Refereed & Reviewed International Journal)



## "ORGANIC CHEMISTRY" LABORATORY OF INFORMATION TECHNOLOGIES IN TEACHING PROCESS

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### ABSTRACT

*This paper makes analyses on the "Organic Chemistry" laboratory of information technologies in teaching process. On this case , both theoritical and practical analyses were conducted as a research methodology. Therefore, technology of the teaching materials were seen as a major development point as the whole. In the teaching process of the subject "Organic Chemistry", it is one of the most pressing issues facing each area of education, in order to increase the effectiveness of students and to improve the quality and effectiveness of their academic studies. Access to information technology is based on computer, video projector, videocoupler, cadoscope, slides, and related animation and Internet data. The use of modern information technologies in the teaching of "organic chemistry" teaches the students to express their opinions in the group, to think independently, to work, to be sober and to learn. The process of introducing information technology in the field of "organic chemistry" is currently being implemented in the academic lyceum and analyzes the extent to which students' knowledge level is increasing.*

**KEYWORDS:** *Organic Chemistry, Labarotory, Inofamtion Technologies, Teaching Process.*



## INTRODUCTION

Continuation of further improvement of the continuous education system in the development of education and science in the "Priorities of social sector development" in the five priority areas of the development of the Republic of Uzbekistan in 2017-2021, increasing the capacity for quality educational services; to undertake targeted measures to improve their material and technical basis by equipping educational institutions with modern teaching and laboratory equipment, computer equipment and teaching-methodological manuals; to improve the quality of general secondary education, to enhance the effectiveness of teaching at a time when full-fledged ICTs have been implemented to deepen the teaching of foreign language, informatics, mathematics, physics, chemistry and biology, in the educational process is a demand today.

The use of modern information technologies in the teaching of "organic chemistry" teaches the students to express their opinions in the group, to think independently, to work, to be sober and to learn. They increase their interest in "Organic Chemistry" and encourage students to take action. The use of modern information technologies in the teaching process of "organic chemistry" enrich science-based guidelines and guidelines for the introduction of information technology into the educational process of continuous education.

Access to information technology is based on computer, video projector, videocoupler, cadoscope, slides, and related animation and Internet data.

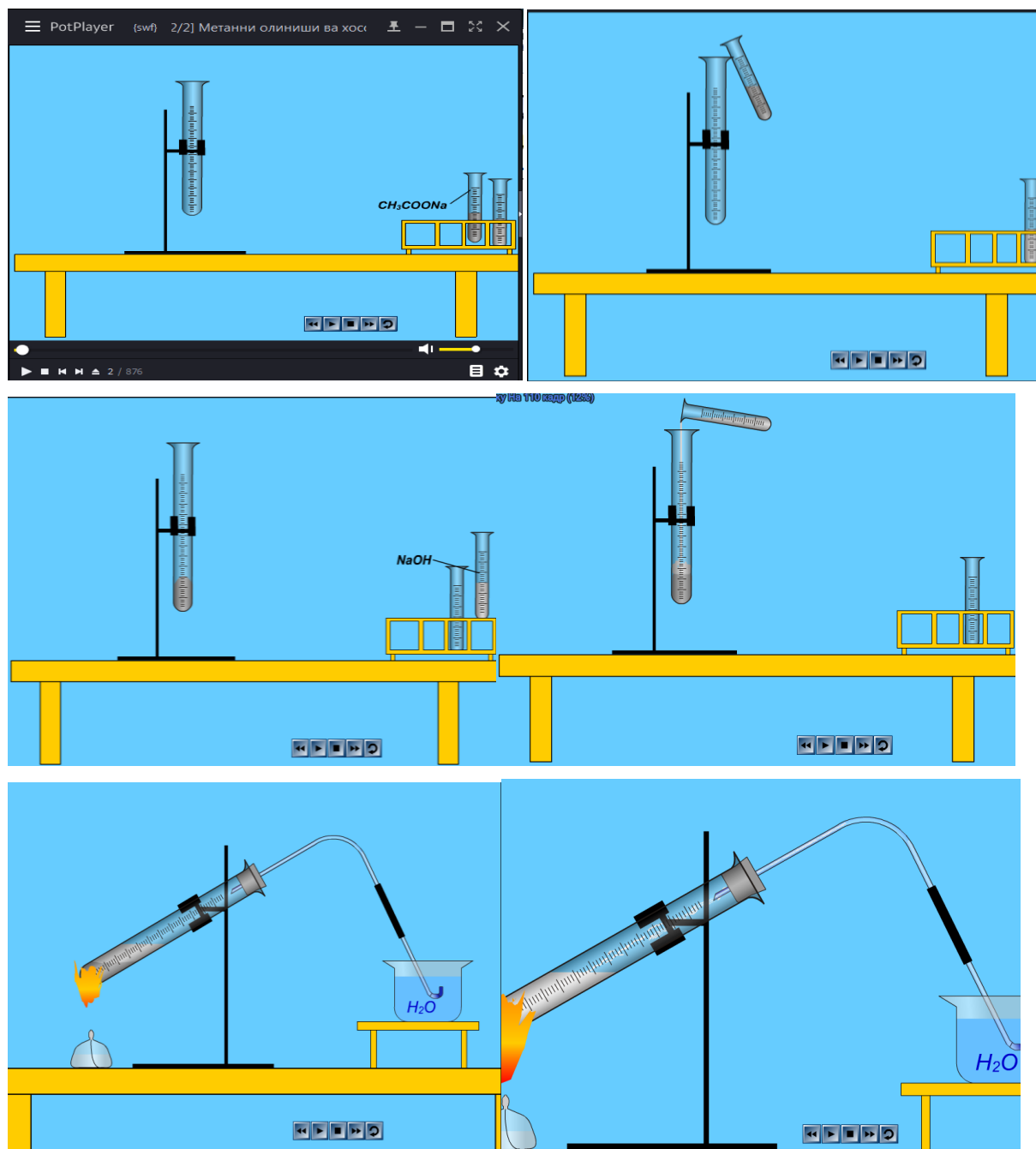
## THEORITCIAL BACKGROUND

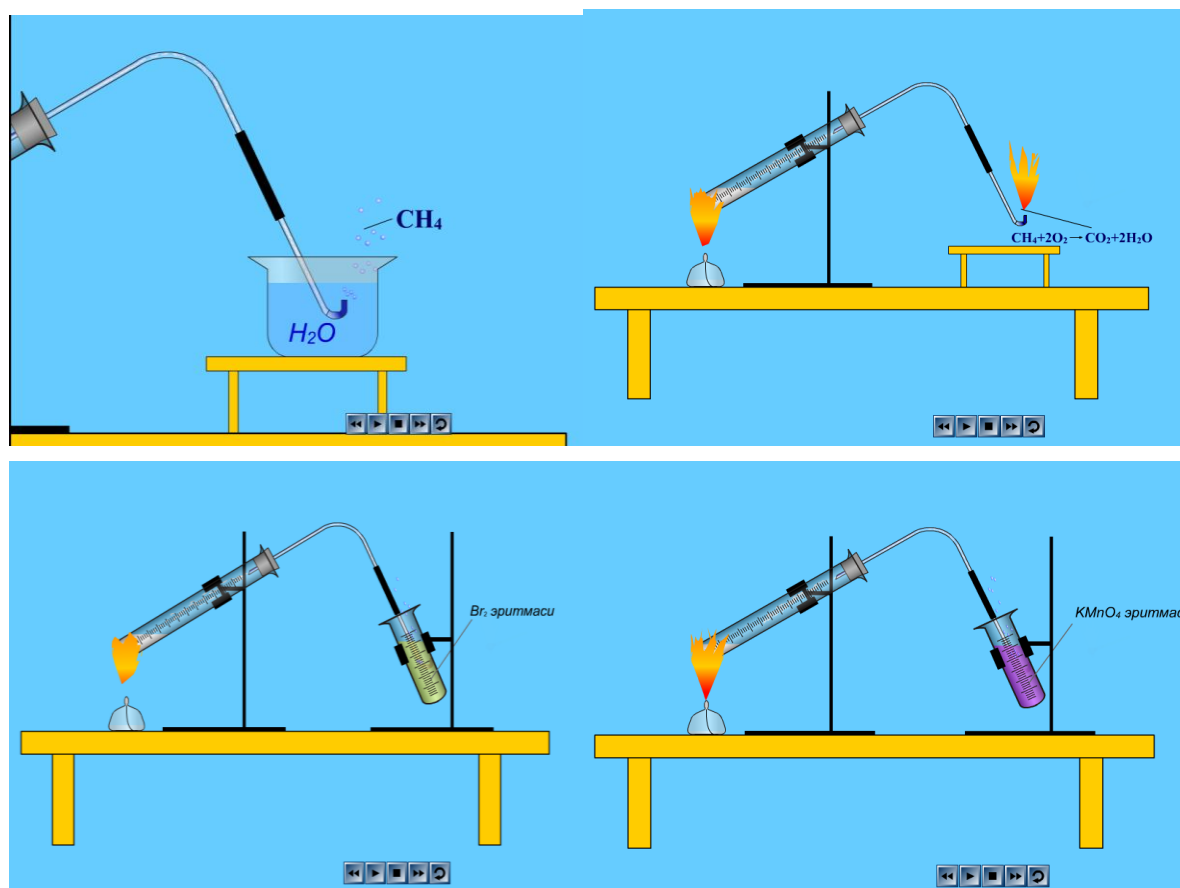
This course is designed to provide an explicit explanation of the subject, using the pedagogical technologies, to prepare students an animated look or video of chemical processes that are difficult to imagine.

Through the use of information technology and Internet data, students are encouraged to apply their practical and laboratory work to increase students' interest in science, understanding the nature of chemical reactions, and the ability to fully understand the quality and structure of chemical products.

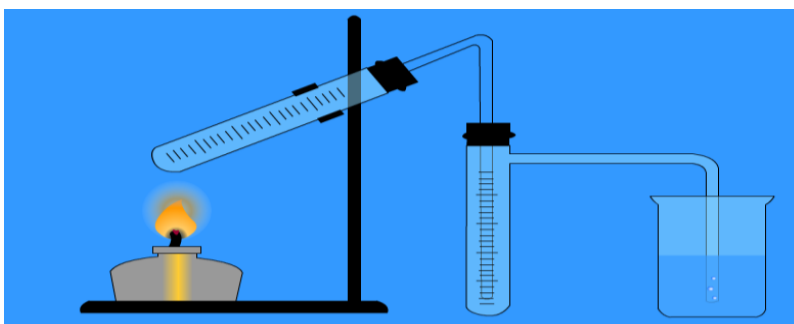
Examples 1 include the use of alkanes in organic chemistry, their properties, and laboratory processes, which are based on the Macromedia Flash software.

In the laboratory experiments, the methane gas is extracted and the properties are briefly described, meaning that the presence of saturated hydrocarbons does not change the color of bromine water and potassium permanganate solutions.

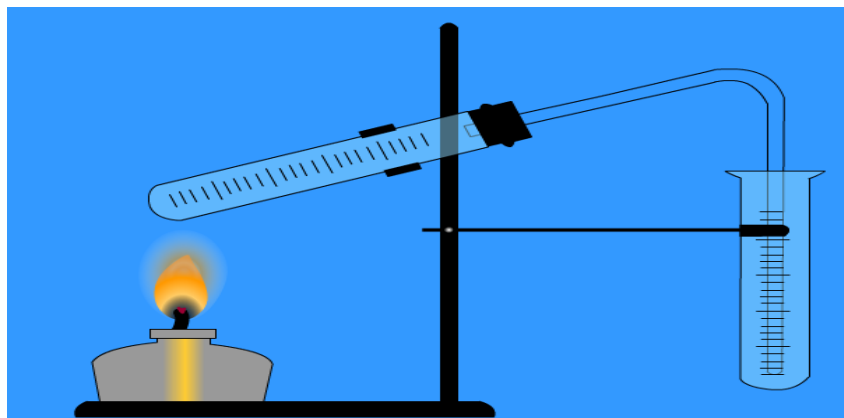




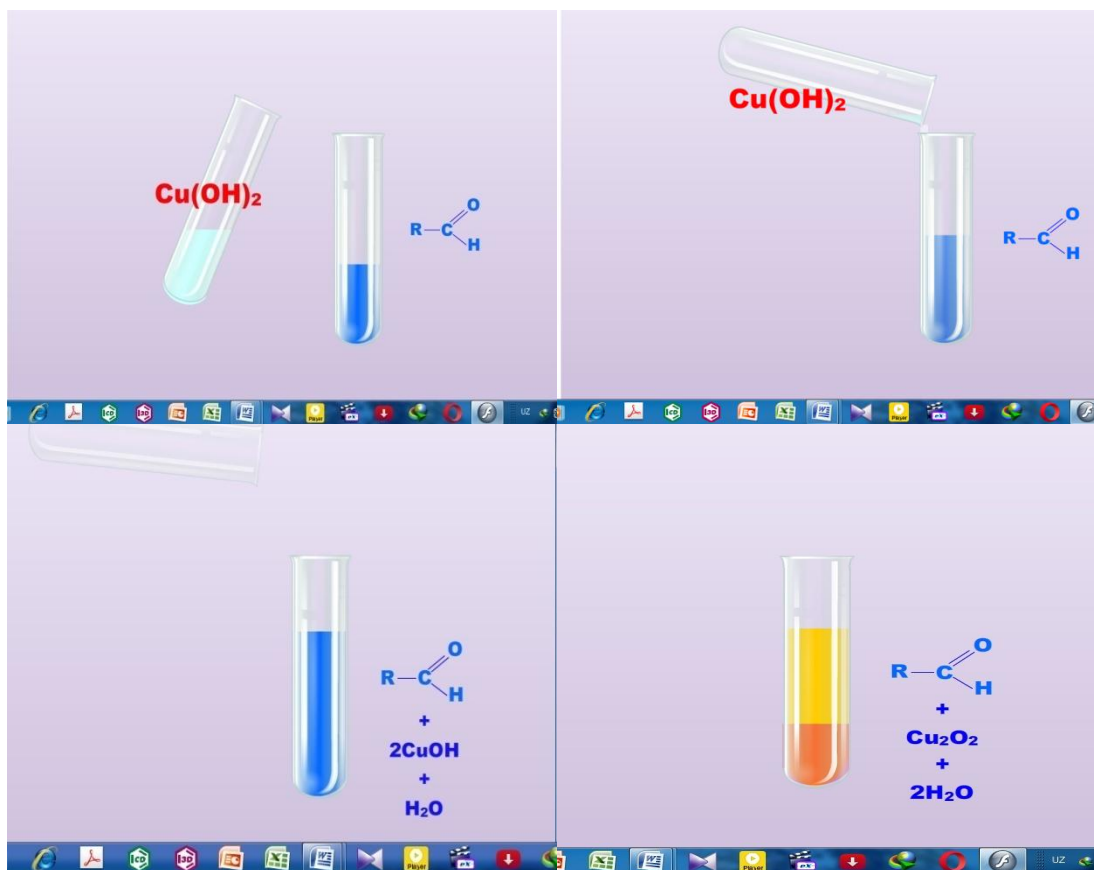
In the example 2, "Organic Chemistry" can be used to capture ethylene in unsaturated hydrocarbons, to produce animated and laboratory processes based on the Macromedia Flash, prepared with the use of their data.

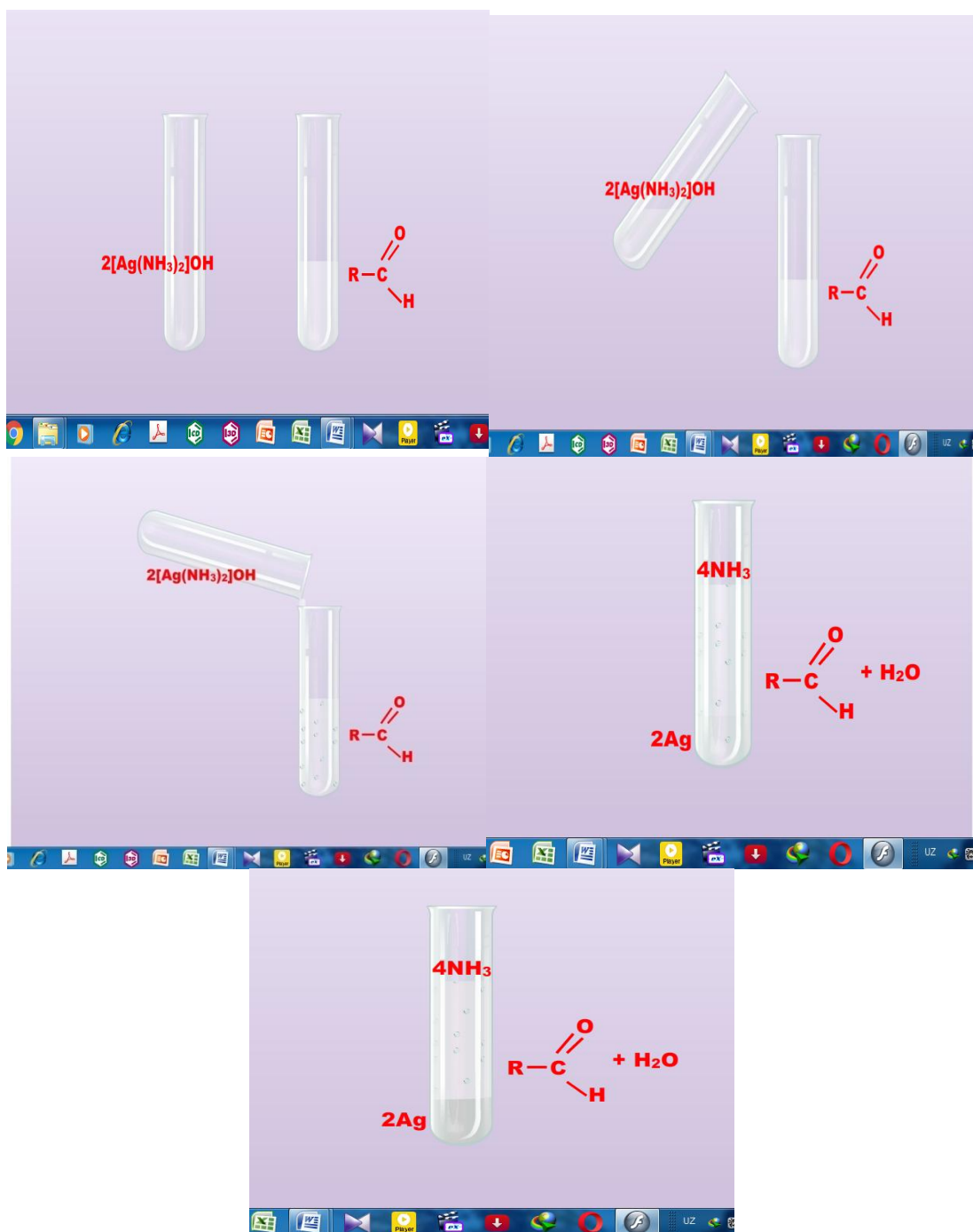


In the example 3, "Organic Chemistry" can be used to capture acetylene in unsaturated hydrocarbons and to produce animated and laboratory processes based on the Macromedia Flash software, using the data of their properties.



In Examples 4, "Organic Chemistry" can be used to describe the methods and chemical properties of aldehydes from oxygen-containing organic compounds by using Macromedia Flash, animated and laboratory processes prepared using information technology and Internet data.





## DISCUSSIONS

At the present time, great attention is paid to the use of interactive pedagogical technologies on the principle of continuity and impartiality during the educational process, because interactive form of education serves as an element of independent learning and reflection in the learning process.

Using interactive methods of teaching at every stage of life, taking into account the peculiarities of the pupil, taking into consideration the peculiarities of the pupil, taking into account the peculiarities of a specific student audience requires a teacher's great pedagogical skills. In the teaching process of the subject "Organic Chemistry", it is one of the most pressing issues facing each area of education, in order to increase the effectiveness of students and to improve the quality and effectiveness of their academic studies.

In summary, the use of information technology in the teaching of "organic chemistry":

firstly, computer animations of reaction mechanisms in organic chemistry are developed and explained to the students by increasing students' knowledge;

Secondly, computer animations of laboratory processes in the field of organic chemistry are developed and the students are taught animation lab technologies;

Third, an interesting example, test questions and test questions will be developed that will enable students to work independently, allowing their students to control their activities and knowledge continuously;

Fourthly, the methodology of creating and using learning-methodical complexes, which will save time for the learning process, will be developed.

## CONCLUSION

Information technology methods help to improve the quality of education, to enhance the reader's activity, and to freely express his or her ideas and skills.

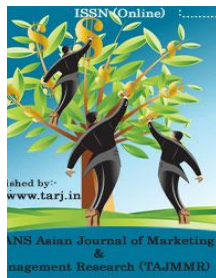
The process of introducing information technology in the field of "organic chemistry" is currently being implemented in the academic lyceum and analyzes the extent to which students' knowledge level is increasing.



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# TRANS Asian Journal of Marketing Management Research (TAJMMR)

(Double Blind Refereed & Reviewed International Journal)



## E-COMMERCE OPPORTUNITIES & CHALLENGES

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### ABSTRACT

*The e-commerce has brought revolutionary change in the old ways of business. sale and purchase of goods and services are done through Internet and Computer network. It is an innovations which is use to change the traditional way of doing business. In our country e-commerce is showing the largest growth in business. E-commerce is also growing tremendously due to continuous increase of internet users. E-commerce is the only option that every businessman will have to adopt in future. In the last few years, due to increased use of internet and mobile phones, e-commerce has also shown a tremendous growth. This study has been undertaken to describe the present status and future growth of e-commerce in our country. The present study is related to examine the challenges and opportunities of e-commerce in India.*

**KEYWORDS:** *Internet, E-Commerce, Online Detail, Increasing Internet Users, Virtual Stores*

### INTRODUCTION

E-commerce means electronic commerce. E-commerce includes all activities of buying and selling of goods and services by using the internet and electronic media.

E-commerce includes

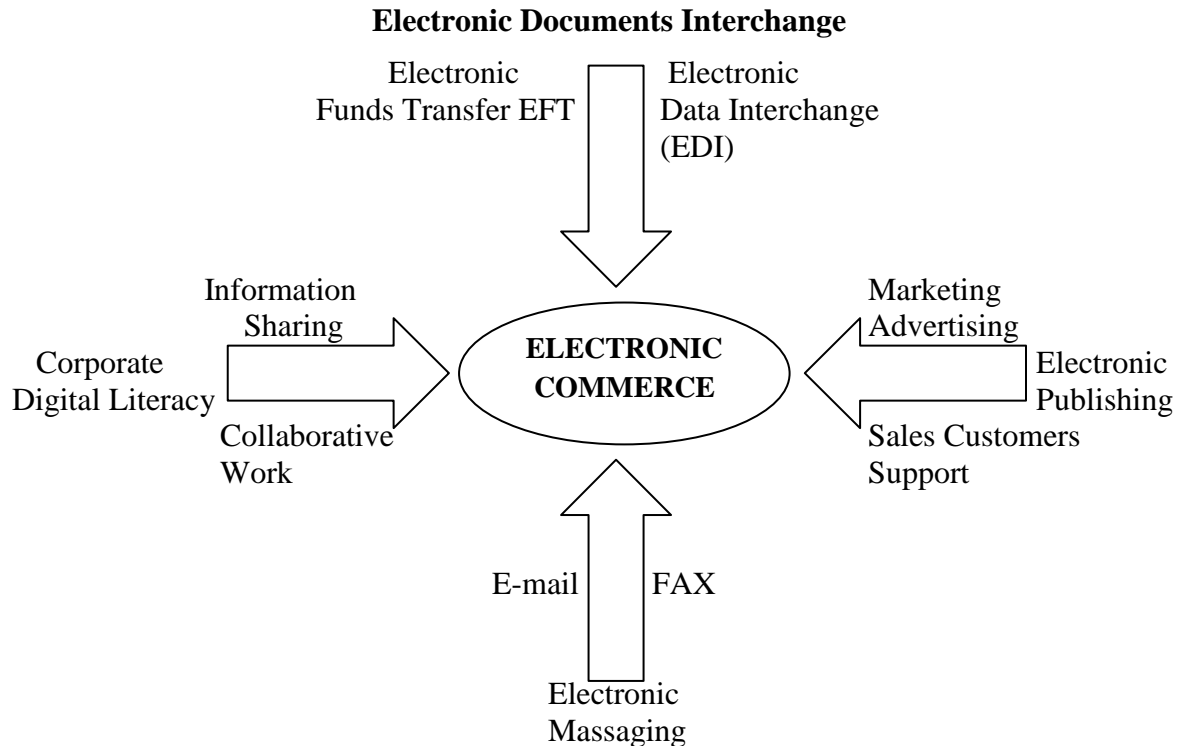
- Online shopping via websites and mobile apps.
- Business to Business (B2B) buying and selling is also includes in e-commerce.

E-commerce business is continuously growing in Indian Market because of continuously increase in the users of internet. It provides wider range of choice for the product and also save time. With the help of e-commerce customer can get all the information about the product easily and also make comparison between different available products. It also helps the people to increases their standard of living.

Main goals of e-commerce are: -

- Reduce cost
- Lower product and cycle time.
- Improve service availability.
- Faster customer response.

E-commerce also applies to the use of internet network to search information in support of human and corporate decision making.



**Necessary Elements to conduct e-commerce:**

- a) A product.
- b) A place to sell.
- c) A website or app to sell the product.
- D) Way to acceptance of order.
- e) A way to make payment.
- f) A way to ship product to buyer.
- g) Return policy.
- h) Provide customer services.

Opportunity in E-commerce:

**1. Opportunity for organizations:**

- Through e-commerce organizations can expand their business from local level to national and international level.

- Minimum investment is needed to expend the business.
- Easily found new customer and market.
- Through e-commerce cost of doing business reduces.
- No need to keep too much stock.

Organization keep connected with the customer all the time so e-commerce is a better opportunities.

## **2. Opportunities for customers:**

- Customers can do transactions any time (24x7) from anywhere.
- Through e-commerce customers have more choices.
- Quick comparison is possible for the customer with minimum cost.
- Customer can participate in virtual auction.
- No need to bargaining.
- Customer does not need to travel for shopping.

## **3. Opportunities for societies.**

- Due to less travelling for shopping will also reduce traffic on the road, which will also reduce air pollution.
- People from rural areas will also able to take advantages of the product which is not available in their area.
- The problem of black money can be solved by making online payment compulsory in online shopping.

## **Challenges in growth of e-commerce**

a) Poor Internet facilities: Internet is backbone of the e-commerce internet facilities in our country is very less. Speed of internet is also a major problem for development of the e-commerce.

b) Lack of security system: The customer feels insecure while doing online shopping. The risk of hacking and cyber crimes remains at all times. This is the biggest hindrance in the development of e-commerce.

c) Lack of trust: It is very difficult to make payment to a **faceless** seller. That's why it is very difficult to switch from traditional way of business to e-commerce.

d) Transaction lost: High transaction lost charges by bank for online transactions. When we use online platform to make payment or book any hotel, ticket etc. Then we must have to pay transaction charges. Due to this, people de-motivated to use e-commerce.

e) Illiteracy: Most of the population is illiterate in our country. People do not know, how to operate digital facility. These situations create problem in use of e-commerce.

f) Opposition by small scale sector: E-commerce may put throat for the small scale sector, that's why they oppose it.

g) Habit of physical purchase: In India most of the customers feel comfortable in buying products from physical seller. They want to check the product before buying. So, they do not prefer online shopping.

**Essential factor for growth of e-commerce in India:**

- Provide COD (Cash on Demand) payment option for customer by every companies/seller.
- Replacement or return policy: Should provide 30 days replacement or return to their customers for every product in cause of any issue.
- Price comparison between popular sellers.
- Low cost shipment: Low cost shipment should provide to their customers for getting more orders.
- Legal requirements of Invoices: There should be legal requirements of generating invoice for online transactions.
- Quick delivery service should be provides to the customers.
- Product quality should be same as shown on the website or app.
- Customer Care Centre: Local Customer Care Centers should be there.

**Some of the E-commerce websites in India**

- Some of the e-commerce websites in India
- flipkart.com
- infobeam.com
- Ebay.com
- Theiwares.com
- Futurebazaar.com
- Lynx-india.com
- Timtara.com
- Shopping.rediff.com
- Edigiworld.com
- Letsshop.in
- Buytheprice.com
- Shopbychoice.com
- Computerwarehousepricelist.com
- Smartshoppers.in
- Homeshop18.com
- Next.co.in
- Royalimages.in
- Cromaretail.com
- Rightshopping.in
- Theelectro.com
- Adexmart.com
- SMCinternational.in
- Storeji.in
- Zapstore.com
- Shoping.indiatimes.com
- Tradus.com



- Bigadda.com
- Amazon.com
- Alibaba.com
- Snapdeal.com
- Shopclues.com
- Bajao.com
- Limeroad.in
- Vijayasales.com

## CONCLUSION:

In Indian economy there are many ways, which plays an important role for developing e-commerce. So, we should develop many others as well as we should focus on training programs of seller or retailers.

Attentions should be paid to the availability and use of internet facilities in rural area. E-commerce is future of shopping. Due to e-commerce customers and producers get connected directly with each other. Weak cyber law in India is a challenge for development of e-commerce. Government must have to maintain hard cyber law to prevent cyber crime for the development of e-commerce.

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