

Research Article

PRACTICAL STRATEGIES TO REDUCE THE AMOUNT OF PAPER CONSUMPTION: A STUDY ON IRANIAN PAPER INDUSTRY

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ABSTRACT

Nowadays, paper is considered one of the most important indicators in promoting knowledge and thought and resolving cultural and everyday needs of people in developing countries. On the one hand, in today's world the development of information technology has resulted in changing service levels in the cyberspace, and on the other, the paper market has been stagnant. But in developing countries such as Iran, due to lack of technological progress, the level of paper consumption is high. Meanwhile, lack of funds, effective policies, and sufficient influential interest in administrative and policy making institutions, the development of electronic services cannot meet public needs. Also, currency fluctuations and paper price increases have caused the cultural sector to face economic difficulties in promoting and developing this field. However, the present article, In addition to electronic services, addresses approaches such integration of newspapers and press, taking taxes for failures in providing distance services and paper-based advertising, determining circulation ceiling, and recycling and relying on supporting of the paper production, and so on. This applied research was conducted on collected data from previous studies and formal and informal statistics to create practical and effective strategies to control the paper consumption and pass through the optimal path with respect to the high volume of its import.

Keywords: Tax, Information Technology, Paper Consumption, Electronic Services, Paper Recycling

INTRODUCTION

Today, the increasing consumption of paper in Iran, and in its wake, imposing excessive pressure on the forests and the environment worldwide is a reason for financial burden on governments. Paying attention to saving and modifying production and consumption patterns in this section is essential to adjust the process of extremist uses which are in clash with the goals of sustainable development. Regarding the consumption of 600 thousand tons of paper in Iran, 90% of which are imported and the return is spent for every ton of it, among the negative consequences, we can refer to excessive degradation of forests, with respect to consumption of 3 to 6 cubic meters of round logs for each tone of pulp, and other adverse effects of deforestation. So, creating a good infrastructure and providing useful guidelines are undeniable to counter extremist consumption process in macro-planning of the future.

In the administrative system of the country, particularly governmental and quasi-governmental systems, a proper model is not used in the consumer sector. The main use of paper in these centers is printing and writing paper, and despite the use of electronic automation systems, indiscriminate and inappropriate use of paper continues. In addition, the consumption of paper and paper products is estimated 1/5-2 million tons, less than 30% of which is domestic production. According to customs statistics the value of imported paper in 2010 totaled 1240469 tons amounting to 1/353 billion dollars. To supply 1/5 million tons of paper at least 26 million trees would be needed.

According to statistics of Forestry sector, exploitation of northern forests from 2 million and 200 thousand sq.m has reached to less than one million sq.m over the past decade, suggesting a 50% reduction in wood supply to the consumer market. Looking at the condition of northern forests -which cover only 7.5% of the country's total area and is the main source of domestic supply of wood raw material and wooden artifacts and paper- clearly shows the sensitivity and vulnerability of this issue.

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MATERIALS AND METHODS

In this article, using the data from the past research documents and official and unofficial data, we use an applied method to present the arguments and to provide an appropriate procedure based on the existing facts in the society. We discussed the performance and the results, using a series of guidelines.

The Importance of the Issue and Possible Strategies

In general, lack of attention to infrastructures and current trends of the annual paper production and consumption in Iran could have a hazardous impact on the environment, economics and social welfare. Hence, in this paper, we investigate modifications of the pattern of production and consumption, proposing proper strategies to direct paper consumption in Iran to an optimal level.

Allocating Tax for Paper-Based and Printed Advertising

Given the wide development of science and technology in Iran, instead of ads on colored paper and so on, Guidance Department must introduce, develop and issue licenses and allocate taxes for advertising. Paper-based advertising, in addition to being a cause of foreign exchange drain because of the dramatic volume of the imported paper, deforms the urban space. So the best alternatives are the use of mass SMS, the virtual space and urban TVs for applicants involved in cultural affairs, and economic and commercial advertising.

Purchasing Students Books by Academic Libraries

The huge volume of the books are purchased by students and unfortunately most of them do not refer to those books again in future. So academic libraries, by purchasing a portion at the cover price, should try to increase the capacity of the libraries. This creates interest and motivation in students or graduates. They should also raise funds to purchase new and used books and promote the number of borrowed books limit to more than two books. The results of these strategies will be as follows:

- Reducing the financial burden and the cost of students
- Reducing costs for purchase of books by academic units
- Beneficial use of textbooks which generally remain in students' houses due to the lack of the agreement between the curriculum and the presents needs of the labor market

Separating and Questions/Answers Sections in Books

Due to the large volume of paper consumed in the field of education, unfortunately, billions of papers are consumed annually. Although the E-book plan is on the agenda and has advantages and disadvantages, it can be useful for textbook publications to separate the practice-and-question sections from books and design special books for general and specific courses. Assigning valuation grades to discipline and keeping books clean is another strategy besides allocating a library to each class which is common especially in European countries. So regarding these approaches it can be expected that shelf life of books increases and purchase demand in each school year seriously reduces. Following this, we will see that government and household costs reduce. To foster the development of ideas and creativity it is necessary to provide new books with constant contents for students.

Allocating Taxes and Creating Non-Attending Services Observance Standards for Institutions and Companies

In order to enhance and accelerate the development and spread of non-attending services in cyberspace, the E-government should provide conditions through which governments can present their services in all days of the week for their citizens. This in recent years has been one of the agendas of the governments and intelligent officials have mustered their forces to realize such conditions, and have tried to modify political, economic and social processes, relying on information and communication technology and providing services to citizens in a more efficient way. Another important issue is to encourage governmental and private organizations to provide non-attending services. Otherwise, their inability to offer such services should be compensated by paying taxes, because in practice they impose a considerable amount of costs on citizens. In the following section, some criteria are explored as suggestions to improve the situation.

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The Observance of Non-Attending Standard

Defining and introducing such indicators with a special standard for electronic and non-attending services for people to develop urban life and manage time and cost, will result in desired level of welfare of people and on the other hand the existing institutions and companies to introduce their activity in advertising and market competitiveness, can provide goods and services and easier access for the applicants.

- Entitlement and providing banking services such as granting of credit facilities depends on achieving observance of non-attending service standards based on defined indicators and benchmarks.
- With this standard, the import and export affairs of these companies and institutions would be possible and it is considered as provisions of the international trade for commercial units.

Integrating Publications and Local Newspapers with a Validation Approach

Considering that papers of newspapers are goods the import of which is done directly by the government, all these products are imported from abroad, except in a state-owned factory. Apart from this issue, according to the FAO (Food and Agriculture Organization), Iran's annual consumption of paper is 600 thousand tons, 90% of which is imported. On the other hand, each Iranian uses an average of 240 kg of paper. In Tehran 500 tons of papers are discarded as waste. Growing issuance of licenses for local newspapers overshadows the quality and cultural value of newspapers.

Meanwhile, to compensate printing costs and lack of effectiveness in attracting audiences in editorial boards, all foci are on increasing commercials ads. The cause of this tendency is our weakness in making a advised use of culture and thought. As a result, an appropriate condition should be planned to evaluate the value of newspapers in terms of cultural development. In addition, most local newspapers allocate most of their pages to advertisements. However, under such circumstances, guidance agencies in each province should organize media and integrate local newspapers, reduce non-scientific and non-cultural content with no value to allow culturally valuable contents, which are appropriate for an Islamic community to be published. However, for newly arrived newspapers, circulation ceiling can be determined to prevent potential losses on their activities.

Determining Ceilings for the Circulation of Books

Given the high and rising price of paper, unfortunately, some authors and publishers, publish books in large numbers. The imbalances between supply and demand for books are as follows:

- Lack of the existence of books in family portfolio.
- Non-diversified book markets and relying just on the bookstores and temporary exhibitions.
- Lack of book sales results in capital recession and lack of motivation for reprinting upcoming books.
- The imbalanced ratio of publishers to bookshops as sales agents is one to three.

In this situation, circulation ceiling should be allocated to non-academic books so that writers and publishers suffer from less economic losses. However, the publications should plan and behave in such a way that, unlike the current situation, the cost of publishing be directly related to the book circulation. This aim will be achieved in the long run.

Limiting Paper-Based Advertising in Elections

Another problem is that during election periods, one observes an increased indiscriminate and illogical use of paper. Unfortunately, some groups in competing with each other, with their irrational behavior deform the completion of city and instead of presenting agendas, they try to win the competition and get the seat just by photos and posters. The Department of Culture should prohibit this type of paper waste and impose taxes on it. In addition, the candidates should be responsible for costs of city cleanup, considering these costs and presenting their ads through speeches, press, local media, and the digital space.

Developing Paper Recycling Units with Revenue from VAT

Paper as a strategic commodity, 85-90% of which is produced from natural forests and planted trees, covers a large proportion of household, commercial and administrative waste in such a way that it can be called as the “king” of the wastes. Increasing production of waste including paper and cardboard, and its non-normative disposal, besides wasting national assets, results in loss of natural resources. Due to the shortage of wood raw materials for the pulp industry, one of the best solutions is paper recycling. Benefits

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of paper recycling as a valuable strategy in Iran have a particular importance because of its profitability, reducing dependence on imports of this product, reducing production and converting costs from fibers into the paper, and employment. Paper and cardboard recycling rate in Iran is low (about 2%), but average rates in advanced countries such as those in Europe and the world average are 87.6, 66 and 50.6 respectively.

To increase employment and paper recycling, to use the paper again, the number of units in the processing and producing paper should be increased. This requires a suitable method of financing for investment and construction. As a part of a value added tax belongs to the municipality and is used in development of urban space and utilities, so to develop a paper recycling units all municipalities across the country by launching paper recycling units and investment can help the private sector. By considering two or more provinces as the main places and creating paper collection units and purchasing papers with fair and reasonable prices and mobilizing these units in the city, and allocating a portion of the VAT, paper recycling centers can be constructed. By separating papers from wastes we can reduce waste production and provide more support in order to protect the living environment with an economic approach.

Designing a Multi-Year Calendar

As the New Year approaches, institutions and companies try to introduce their team work activities and publish their own customized calendar. However, We can institutionalize this culture that it's better to design and present a multiyear calendar. Regarding the high cost of designing a calendar and its cover, this procedure reduces the overall paper consumption by at least 50% in the related field.

RESULTS AND DISCUSSION

- Due to defective conditions in the manufacturing sector in Iran as well as the limitations of resources and raw materials for paper production, by reducing consumption, at least indiscriminate imports and high currency consumption could be minimized and higher priorities for imports could be considered.
- By reducing paper consumption, the focus is drawn to cyberspace, which leads to social and cultural development and as a consequence, convenient access of people to facilities and information technology, and a significant impact on their cost and time consumption.
- One of the major effects of the consumption of paper will be preservation of natural resources and forests and improvement of environment condition in present geographic and climate situation. As a result paper waste can be reduced, particularly in the present situation in which sufficient investment is not made for recycling.
- It also should be noted that nowadays given that technical equipment, recreational facilities and media have grown dramatically. Because of this diversity in gaining knowledge and public awareness, authors are advised to provide précised but valuable versions of their works to reduce paper consumption.
- Part of the issue is related to electronic and non-attending services, so the governments should increase broadband Internet and make it affordable. As a result, all people in the society have access to computers and the internet. Necessary conditions for the development of cyberspace should be provided to reduce paperwork and cost of commuting.

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