

STUDY ON RURAL INFORMATION AND FARMERS' INFORMATION QUALITY TRAINING MODELS -- SHIJIAZHUANG CITY AS AN EXAMPLE

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Abstract: The information in rural areas of Shijiazhuang survey results showed that there were greater differences between urban and rural areas in the information equipment ownership and consumption of information, the way of farmers understanding information was rather narrow and concentrated. The information gap existed between urban and rural areas. This paper raised the model of cultivating the information-based.

Keywords: Shijiazhuang, rural information, information quality, training model

1. INTRODUCTION

Farmers are the main in building a new socialist countryside, so the information in rural areas is also important to achieve the modernization in rural. In China's rural, information construction is not only information structure construction, but also is to have a skilled user of information and information creators. In order to make farmers adapt to the modern

information society environment, and cultivate and enhance their information quality level. Therefore, accelerating rural information infrastructure construction, and training farmer's information quality become the top priority of in rural information building.

In recent years, China's rural information construction is quick. In 2005, national agricultural sites were 15, 964(Tan Liang et al, 2006), these sites played a significant role in spreading agricultural policy, technological achievements, and technological information. In addition, China had more than 3,000 species agricultural journals and hundreds of agriculture-related newspapers and professional newspapers, and agricultural programs and columns in radio and television (Yi Ming, 2007). However, Farmer's ability to use information and create information is not attention, so it is necessary to cultivate a higher quality of information users.

In this paper, Shijiazhuang is the background to survey the information situation in rural area. The city's information technology development in rural areas is a better level in the province, but with the modern information society, a far cry from the distance between urban and rural areas, mainly reflects in the information technology infrastructure, and relatively low quality of information farmers. These problems are not conducive to modern agricultural science and technology achievements and the rapid promotion and popularization. With regards to these, the paper raises the cultivating information model about farmers' quality.

2. THE BASIC CONDITIONS ABOUT THE RURAL INFORMATION

2.1 Socio-economic situation

Shijiazhuang city is the center of province's political, economic, technological, financial, and information, as a capital of Hebei Province. There are six districts, twelve counties and five county-level city and a state-level high-tech development zones with a total area of 15,800 square kilometers in Shijiazhuang city. In 2004, the city's resident population is 9.175 million, and which of 5.637 million rural populations, accounting for 61.14 percent. The city's GDP is 16.33 billion yuan, and rural per capita net income is 3,799 yuan, per capita consumption expenditure is 2,059 yuan, is the country's major agricultural base.

2.2 Basic conditions of information

Family-owned information equipments are the material basis to get information and dissemination information. This paper investigated the Shijiazhuang family of information equipment at 2004. Fig.1 showed the actual situation. From the survey of 16 counties and county-level city in the 6632 families, until July 2006 with TV subscribers accounted for 106.42 percent, with 80.23% of telephone users, and have accounted for 3.16 % of computer users, Internet users accounted for only 2.66 %. The results showed that every 100 families between urban and rural areas of information equipment conditions existed significant differences. Survey showed that in rural television and fixed telephone had been widespread, mobile phones were still differences between city and rural. The largest differences were computer users and Internet penetration, which proofed the information gap between urban and rural areas.

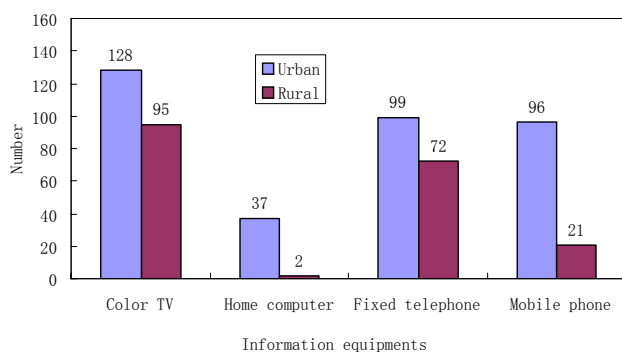


Fig.1. Family-owned information equipments every 100 households between urban and rural

2.3 Differences between information consuming

In 2004, differences between information consuming were 416 yuan in the city and 74 yuan in rural areas. From the survey results showed that the major using of rural fixed telephone and mobile phone were families calling and phone calling. Differences about information equipment also exist at regional space. This difference showed that the exurbs information equipment ownership and consumption level of information were lower and lower from the urban areas to suburbs. For example, the internet users at he suburb of Changan Qu West-Zhaotong village accounted for 7.3%, 6.1% of the computer, 99.6% fixed telephone, mobile phone 103.8 %, 100% TV. But the Internet users and computer users at the suburb of Pingshan county Second-Qingtian village accounted for 0%, 25 percent of fixed telephone, mobile phone 10%, TV 75%.

2.4 The way of farmer's access to information

For farmers access to information, not only by restricting information infrastructure conditions, the impact of another traditional concepts. Today's society, networks, television and newspaper are the primary means of people access to information. According to China Internet Network' survey, people chooses the means of access to information for the respective ratios of 82.6% network, television 64.5%, 57.9% newspapers, magazines, books and radio were the way people access to information, the proportion of choice in 10% to 20%. Therefore, network is the most important means, followed by the popularization of television, then the paper media, and finally the radio. In the paper, the results of the survey showed that TV, go and acquaintances are major market channels to understand information of food, vegetables, fruits, and eggs in their daily life.

2.4.1 The primary means access to career information

Investigation showed that in rural television and radio were the main channels access to career information, followed by newspapers, magazines and introduction from friends and relatives, the Internet accounted for 8 percent.

Table1. The primary means access to career information (%)

Internet	TV and radio	Newspapers and magazines	Introduction from friends and relatives	Go to market
8	38	19	22	13

2.4.2 The primary means of understanding Day-to-day community

Survey results showed that the daily television was the most important channel for the community, accounting for 61.47%, followed by the Go, and accounting for 29.36%. These phenomenon described going to market in the rural areas were not only trading places, but also were important place for the understanding and dissemination information. Newspapers and radio were also a message of the media.

Table2. The primary means understanding Day-to-day community (%)

News Network	Agricultural science and technology and wealth	Agricultural Information	Entertainment	Weather Forecast
30	12	9	24	25

2.4.3 The primary way of understanding food (or vegetables, fruits, eggs, etc.)

According to the survey, TV, go and acquaintances from friends and relatives were the major market channels to understand food, vegetables,

fruits and eggs in the daily life. Television accounted for 29%, go for 26%, acquaintances for 21%, and intermediary only for 2%. From that point of view, the way accesses to information of people are blocking and original. The dissemination information of intermediary, newspaper and broadcast may be a delay and distortion. So people are doubt about the authenticity and credibility of information.

Table3 The primary way of understanding agricultural products (%)

Media	TV	Newspapers	Radio	Network	Intermediary	Go to market	Acquaintance	Other
Understanding the market	29	9	7	5	2	26	21	1
Understanding the community	40	12	11	6	\	19	\	12

2.4.4 The main content of watching television

In this survey, the main content of watching TV is news about 30 %, that people concern to the community is improving, weather forecast of 25%, that people are realizing that the weather forecast on the importance of daily life and production. Agricultural information and agricultural technology accounted for 9% and 12%, that agricultural information content is less. The main reasons are not rich, not comprehensive, practical difference, and not satisfy the needs of people.

2.5 Internet situation between urban and rural residents

With the development of the Internet, the networks have become a good helper of lots of people at work and live, but its popularization and application mainly occurred in the city. According to the survey data China's Internet in June 2006 showed that Internet penetration in urban were six times than the rural town, towns of the Internet penetration rate was 18%, 3% in rural areas. The next period of time, the gap between urban and rural may continue to increase.

During the survey none of the online accounted for 54%, with little access to the Internet accounted for 27%, and the regular access to the Internet accounted for only 19%, Internet users accounted for only 2.66%. This descript that the Internet is a blind spot in the rural areas. So there are difficult to eliminate the information gap between urban and rural areas.

3. TRAINING MODEL ON FARMERS INFORMATION QUALITY

3.1 The composition of the information quality

Information quality is the sum of basic quality with information on the identification, analysis, processing, handling, use, innovation, knowledge management, capacity and awareness. Information quality is different types about different learners, information standards and quality of the content. Information quality of new farmers includes the following content:

(1) Information awareness level. Information awareness is the premise and basis of gathering, processing, analysis, synthesis, the use of information. Mainly to realize the importance of the socio-economic information, the relatively strong desire to understand sources of information and information tools.

(2) Information moral level. That is knowledge and understanding of information relating to the economic, legal and social issues, fully aware of information has become a modern morality to comply with the basic norms.

(3) Information knowledge level. That is able to master the basic knowledge and basic skills if information technology, using information technology tools to expand information and communicate information channels. When encountering problems can rely on information to judgment, analysis, use and decision-making.

(4) Information capacity level. Refers to people in their daily life and social practice, with access to information, access to information, the development of information and the ability of self-cultivation.

3.2 Training model on Farmers information quality

At present the masses of peasants are the most eager to the information including three areas: the first is information with own interests related to agricultural and sideline products and labor market. The second is technological information on agricultural science, including the raising, planting, pest control and other disasters practical information. The third is education training about improving the cultural quality and information capability.

New farmers cultivating information quality should focus on training information awareness, information ethics, and information knowledge and information capacity development through the model of education - training - cultivating - nurture (Figure 2). Information education is mainly embodied in the knowledge of farmers to grasp information. Training of farmers is mainly embodied in the comprehensive use of the information capacity, such

as the comprehensive analysis and judgments. Cultivating mainly reflected in the information ethics education so that they know and Information relating to the ethical, legal and socio-economic problems. Nurturing is a long-term task, through the process of guidance and application change concepts and increasing capacity and quality of information.

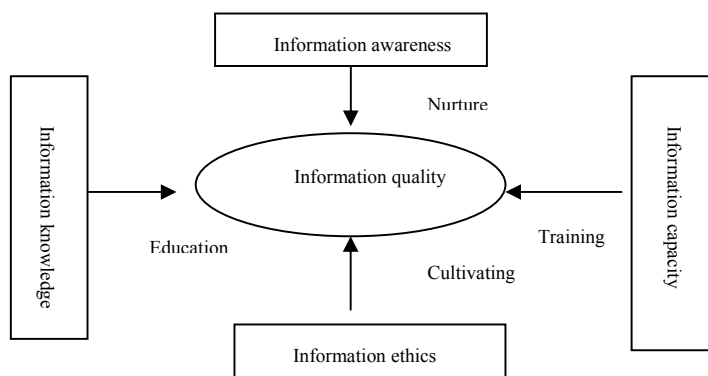


Fig.2. The quality of information and model building

3.2.1 Integration of information quality training and rural vocational skills training

Firstly, teaching concepts and teaching purpose is integrated. Vocational and technical institutions in training the information quality should play to their advantages. Skills training are basic education combined with knowledge and skills. Farmers cultivating information quality are not only to comply with adult characteristics, but also to meet the characteristics of farmers. Training form should diverse because work, family, society, life impacting on farmers learning.

Secondly, the learning patterns are changed. The traditional mode of learning is the main textbook learning resources, students as passive recipients of information. The purpose of the training of farmers is not just to teach them the specific information knowledge and skills, but also is more important to train them information quality with an independent search, processing, processing, and evaluation, with the ability to solve practical problems (Zhang Housheng et al., 2007). "Based on the resource-based" learning is a kind of autonomy and flexibility of learning, such a learning mode in line with the characteristics of the farmers. They can accord their study time, interest and the actual capacity for flexible adjustment. Through the learning resources and materials finding, analysis, judgment and application of information to enhance their cultural skills and learn how to

evaluate information and learn to work with others, exchange, the ultimate quality of the ability to access to information.

3.2.2 Training model of information quality through professional associations and Cooperation Organization

In order to meet the agricultural market, the development of the professional associations, cooperative organizations, enterprises and the rural economy and intermediary service organizations and other new organizations, is extremely effective in achieving a market-oriented, with farmers as the basis, leading enterprises as the core, and therefore the dissemination of information on agriculture are more positive, direct and efficient appeal and influence. Each farmer accords its own advantages and conditions to join a professional association or cooperative organizations. In practice, they can place the study in the complex, and vital interests of their closely related to the environment. So they will solve problems in real life and social production by the form of joint cooperation. In the process of solving problems, students receive information quality and ability to cultivate a spirit of cooperation and conducive to cultivating awareness and information pre-empt the sense of lifelong learning. This new mode of education make farmers learners more profound understanding and grasp of information technology than the traditional mode, and building their own quality of the information system and information technology in the dissemination and effective solution to problem that the network technology and television broadcasting not solution.

3.2.3 Accelerating the building of the rural information

First is to establish an information center or information site at each village. Secondly, building information center and the use of information should foster a large number of information talents. Through equipped with computers, touch screen, big screen, and other agricultural services, "autotoll " network works to achieve scientific and technological households, and county, township and village connected to horizontal, vertical linked network of new agricultural technology service system, so that the majority of farmers easier to understand agricultural production and market information. Through the "autotoll " network project is not only able to rapidly increase their use of the capacity and quality of information, more importantly, this is a further extension of the rural economy industry chain and promote peasants to increase income, agricultural efficiency and effective measures. Further promoting rural broadband, telephone, SMS and the universal application of information.

4. CONCLUSION

(1) Shijiazhuang is capital of Hebei Province, the rapidly economic development, the level of information in rural areas have greatly improved in recent years, the owner of mobile phones, fixed phones and TV are relatively high. The wishes of the resident's access to information are relatively strong.

(2) The county economies of Shijiazhuang are less development, mainly are the agricultural economy. The larger differences still exist between urban and rural areas. Especially computer less and the Internet empty become one of the bottlenecks of restricting the further development of the rural areas of information. TV, Go and acquaintances become the way of farmer's access to information. This shows that the means of farmer's access to information is original and concentrated, not satisfying people's needs.

(3) The Government focus on hardware construction on information construction in rural areas, village-development projects faster, but the information provided, publishing, services, management, and other areas are still relatively weak. People's comprehensive, judgments about information should to be strengthened.

According to above findings, this paper raised the model of cultivating the information-based to improve the quality of farmers.

REFERENCES

- China's Internet development report [EB/OL]. [2006-6]
He grams of. Modern educational technology and innovation personnel training. [EB / OL].
[Http://www.edu.cn/articledigest2/xian-daihtm](http://www.edu.cn/articledigest2/xian-daihtm). (In Chinese)
[Http://www.cnnic.net.cn/images/2006/download/2006011701.pdf](http://www.cnnic.net.cn/images/2006/download/2006011701.pdf) (In Chinese)
Shijiazhuang Statistical Yearbook [M]. Beijing: China Statistics Press, 2005. (In Chinese)
Tan Liang. Wang Cheng. Agricultural site evaluation studies [J]. Anhui Agricultural Science, 2007,35 (6). (In Chinese)
Yiming. Agricultural Information: farmers can use is fundamental, 2007.
[Http://www.sdngx.com](http://www.sdngx.com). (In Chinese)
Zhang Housheng. Yuanxi Council. Information Literacy [M]. Nanjing: Southeast University Press, 2007. (In Chinese)