Chapter 5
Subject Dispersion and Scatter

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Chapter 5
Subject Dispersion and Scatter

This is an age of research and expedition in every field of knowledge. Consequent increase in the production of information is best reflected in the literature of every discipline, and economics is no exception. The subject (Economics) is assuming greater prominence in the field of education and research today. The universities all over the world offer courses in economics education and research.

Of all bibliographic characteristics that have been discussed, subject is undoubtedly the most important and, an unfortunate correlation, the most troublesome. The pre-eminence of subject is reflected in the subject-orientation of most bibliometric work. Data is analysed and presented in a manner which highlights subject characteristics, above all. This has led to sometimes mistaken conclusion that subject is the great distinguishing mark of the literature.

Literature too channels itself largely along subject lines the arrangement of library collections and bibliographic tools are testament to this. This channeling should make subject an eminently observable and easily quantifiable commodity certainly, in theory, to a greater degree than (say) level. Far from it: the absence of a commonly agreed and understood terminology plunges subject investigation, practically in the social sciences and humanities, into doubt and disagreement.

The literature of any subject field has certain basic characteristics which provide information as to structural forms and process of the subject. An objective and systematic means of identifying some of these characteristics of a subject or discipline is through citation analysis. The study of citations to materials which various authors were to support or in which they publish the results of their different intellectual inquiries within subject field, usually serves as a useful indicator to the relevant and significant literature of the subject.

Since Bradford’s exposition on this methodology, there have been several studies on different subjects or disciplines, which have been found useful by researchers and workers in such treated fields, more particularly, the librarians, in
their collection development programmes for those disciplines. The use of literature (a) by European sociologists has been studied by Guha, and (b) by research scholars in political science and economics has been studied by Verma and Murthy. The quantitative and collaborative trends in American sociology research have been examined by Patel. Prabha conducted a pilot study to probe into the citation behaviour in business administration literature. In his survey analysis Goil studied the coverage of Indian documents on economics, by International Bibliography of Economics, Index of Economic Journals, World Agricultural Economics and Rural Sociology Abstracts, and Journal of Economic Abstracts during 1952-1960. Rajan examined the scattering of Indian documents on economics in 25 Indian and 53 foreign journals of 1959 and 1960 and found that 97.5% of documents were published in Indian journals.

The course in economics in 1921 formed a part of the Master's program. The emphasis on empirical and problem-oriented research has been a prominent feature of economics. Economics, in which there is a strong tradition of 'received theory' and the basic methods of analytical reasoning and empirical verification of economic hypotheses have reached the 'advanced' textbook level, the recent literature on research per se is somewhat limited. However, even though limited in quantity, the contributions on research in Indian economic literature are interesting due to two reasons. The first is that an important part of the literature discusses basic question relating either to the deductive and a priori or postulation basis of economic theorizing, or to the assumptions underlying the use of economic statistics or econometrics for economic model building and verification of economic hypotheses. The second reason, which lends interest to Indian contributions on research in economics, is that even when such contributions have implicitly or explicitly accepted the fundamental proposition that the economist is concerned with the derivation and testing of refutable hypotheses relating to economic life, the concern has been with the necessity of special approaches to analyse the Indian economy.

Research interest of economics scholars projects an interesting panoramic view. A variety of economics topics are available to Indian scholars to do either
research or to have a strong interest in the subject. This subject classification has a high degree of overlap, but what is interesting is to know that many economics scholars are interested in inter-disciplinary subjects. The subjects have been arranged alphabetically.

1. **Agricultural Economics**

   1.1 Agricultural Marketing
   1.2 Studies of villages and Regions
   1.3 Ownership and cultivation of land. Farm size and structure; Land reforms
   1.4 Agricultural and rural labour; employment and unemployment
   1.5 Agricultural cooperation
   1.6 Effects of urbanization, war, etc., on Agricultural and rural economy
   1.7 Agricultural production; Technological change in agriculture
   1.8 Agriculture and economy; Terms of trade of agriculture
   1.9 Animal Husbandry
   1.10 Community development and rural development; agencies and programmes
   1.11 Rural electrification
   1.12 Capital formation in agriculture
   1.13 Agriculture Taxation

2. **Demography**

   2.1 Population problem
   2.2 Labour force
   2.3 Fertility and mortality
   2.4 Migration
3. Economic Theory

3.1 Theory of Planning, welfare
3.2 Theory of Development
3.3 Theory of International Trade
3.4 Theory of Money, Employment and output

4. Industrial Economics

4.1 General Studies of Industrialization, Organization of Industries, etc.
4.2 Studies of Particular Industries Covering Their History, problems and prospects
4.3 Industrial Location
4.4 Industries and Industrialization in particular Regions
4.5 State policy for Promotion and control of Industries
4.6 Small-scale Industries; Problems and Programmes
4.7 Studies of Wages, Profits, Dividends, etc., in industries.
4.8 Corporate Savings and Investments

5. International Economics

5.1 Exports
5.2 Imports
5.3 Balance of Trade and Payments
5.4 Policies for International Trade
5.5 International and Regional Arrangements for Trade and Payments
5.6 Foreign Capital and Economic Development
5.7 Indian Trade with specific countries
5.8 Studies of particular Periods.

6. Labour Economics

6.1 Economic Conditions and Labourers
6.2 Studies of Wage, Wage-Structures, etc.
6.3 Regulation of Wages
6.4 Industrial Relations, Disputes, etc.
6.5 Social Security for Labour

7. Mathematical Economics and Econometrics

(Including National Income Accounting)

8. Money and Banking

8.1 Monetary History; Changes in Money Supply
8.2 Monetary Policies
8.3 Money and Capital Markets; Financial Institutions
   Indigenous Banking
8.4 Banking India
8.5 Studies of Particular Categories of Banks
8.6 Studies of Particular Types of Credit
8.7 Economic Fluctuations; Price Behaviour

9. Public Finance

9.1 General studies of Public Finance and Financial Administration
9.2 State/Provincial and Municipal Finance
9.3 Evaluation of Tax Systems
9.4 Studies of Particular Taxes
9.5 Fiscal Policy
9.6 Public Debt
9.7 Public Expenditure
9.8 Public Enterprises
10. Transport


5.1 Subjectwise Distribution of Ph.D. Theses

The present study has been undertaken to analyse the subject-wise distribution of research in Economics. Subject analysis of a total of 444 doctoral dissertations submitted to the Madhya Pradesh Universities during 1970-1995 revealed that the subject areas covered were more of broad in nature.

In order to determine the subjects in awarded Ph.D. theses in Madhya Pradesh Universities alphabetical list are presented in Table 5.1 into 12 subject categories.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Subject</th>
<th>No. of Theses</th>
<th>Cum. No. of Theses</th>
<th>%</th>
<th>Cum. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Agricultural Economics</td>
<td>78</td>
<td>78</td>
<td>17.567</td>
<td>17.567</td>
</tr>
<tr>
<td>2.</td>
<td>Co-operatives</td>
<td>18</td>
<td>96</td>
<td>4.054</td>
<td>21.621</td>
</tr>
<tr>
<td>3.</td>
<td>Demography</td>
<td>19</td>
<td>115</td>
<td>4.279</td>
<td>25.900</td>
</tr>
<tr>
<td>4.</td>
<td>Economics</td>
<td>23</td>
<td>138</td>
<td>5.180</td>
<td>31.080</td>
</tr>
<tr>
<td>5.</td>
<td>Financial Economics</td>
<td>66</td>
<td>204</td>
<td>14.864</td>
<td>45.944</td>
</tr>
<tr>
<td>6.</td>
<td>Industrial Economics</td>
<td>79</td>
<td>283</td>
<td>17.792</td>
<td>63.736</td>
</tr>
<tr>
<td>8.</td>
<td>Labour Economics</td>
<td>68</td>
<td>364</td>
<td>15.315</td>
<td>81.978</td>
</tr>
<tr>
<td>9.</td>
<td>Land Economics</td>
<td>17</td>
<td>381</td>
<td>3.828</td>
<td>85.806</td>
</tr>
<tr>
<td>10.</td>
<td>Planning and Growth</td>
<td>35</td>
<td>416</td>
<td>7.882</td>
<td>93.688</td>
</tr>
<tr>
<td>11.</td>
<td>Public Finance</td>
<td>21</td>
<td>437</td>
<td>4.729</td>
<td>98.417</td>
</tr>
<tr>
<td>12.</td>
<td>Transportation</td>
<td>07</td>
<td>444</td>
<td>1.576</td>
<td>99.993</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>444</td>
<td>444</td>
<td>99.993</td>
<td>99.993</td>
</tr>
</tbody>
</table>
It is obvious from Table-5.1.1 that large part of research output has been in the area of Industrial Economics i.e., 79(17.79%) out of the 444 Ph.D. theses. Agricultural Economics (78; 17.56%), Labour Economics (68; 15.31%) and Financial Economics (66; 14.86%) occupy second, third and fourth position respectively. This finding indicates that the above mentioned four areas represent the subjects in which maximum research work is done; which is nearly 65.52% of the total research work.

5.2 Universitywise Ranking Order of Subject Analysis of Ph. D Theses

The subject of interest varies from university to university. This has been presented in Table 5.2 as per order of ranking.
TABLE - 5.2
Universitywise Ranking Order of Subjectwise Analysis of Ph.D. Theses

<table>
<thead>
<tr>
<th>S N</th>
<th>Subject</th>
<th>Universities</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Bhopal</td>
<td>Bilaspur</td>
<td>Gwalior</td>
</tr>
<tr>
<td>1</td>
<td>Industrial Economics</td>
<td>09 05 15 08 09 08 07 18</td>
<td>79</td>
<td>17.792</td>
</tr>
<tr>
<td>2</td>
<td>Agricultural Economics</td>
<td>08 06 11 01 11 16 09 16</td>
<td>78</td>
<td>17.567</td>
</tr>
<tr>
<td>3</td>
<td>Labour Economics</td>
<td>04 05 09 06 10 15 07 12</td>
<td>68</td>
<td>15.315</td>
</tr>
<tr>
<td>4</td>
<td>Financial Economics</td>
<td>05 02 07 09 09 05 16 13</td>
<td>66</td>
<td>14.864</td>
</tr>
<tr>
<td>5</td>
<td>Planning and Growth</td>
<td>01 02 10 02 02 01 10 07</td>
<td>35</td>
<td>7.882</td>
</tr>
<tr>
<td>6</td>
<td>Economics</td>
<td>02 01 03 05 02 03 07 -</td>
<td>23</td>
<td>5.180</td>
</tr>
<tr>
<td>7</td>
<td>Public Finance</td>
<td>02 01 06 02 -</td>
<td>05 02 03</td>
<td>21</td>
</tr>
<tr>
<td>8</td>
<td>Demography</td>
<td>- 02 01 -</td>
<td>03 01 08 04</td>
<td>19</td>
</tr>
<tr>
<td>9</td>
<td>Co-operatives</td>
<td>01 01 03 -</td>
<td>- 03 05 05</td>
<td>18</td>
</tr>
<tr>
<td>10</td>
<td>Lad Economics</td>
<td>04 01 03 02 03 01 02 01</td>
<td>17</td>
<td>3.828</td>
</tr>
<tr>
<td>11</td>
<td>International Economics</td>
<td>01 - 06 01 01 - 01 03</td>
<td>13</td>
<td>2.927</td>
</tr>
<tr>
<td>12</td>
<td>Transportation</td>
<td>- - 02 -</td>
<td>01 -</td>
<td>03 01 07</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>37 26 76 36 51 58 77 83</td>
<td>444</td>
<td>99.993</td>
</tr>
</tbody>
</table>

88
Table 5.2 indicates the universities in Madhya Pradesh conducting economics research in different field of economics. The name of universities have been arranged alphabetically and the ranking order of awarded theses shows that the highest number of submission (83) were made in Vikram University, Ujjain. It may be noted that this university awarded 18 Ph.D. theses of Industrial Economics and 16 Ph.D. theses in Agricultural Economics. The second and third position goes to Awadhesh Pratap Singh University, Rewa and Jiwaji University, Gwalior, with the submission 77 and 76 theses in economics. In Rewa the main development is in Financial Economics with 16 theses and research scholars of Jiwaji University, Gwalior emphasis on Industrial Economics with 15 Ph.D. theses.

5.3. Yearwise Subject Analysis of Ph.D. Theses

The yearwise analysis of subjects on which researches have been conducted are presented in Table 5.3. The yearwise distribution of Ph.D. theses in different field of economics have been grouped in five years.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Agricultural Economics</td>
<td>03</td>
<td>08</td>
<td>19</td>
<td>21</td>
<td>27</td>
<td>78</td>
<td>78</td>
<td>17.567</td>
</tr>
<tr>
<td>2.</td>
<td>Co-operatives</td>
<td>05</td>
<td>-</td>
<td>02</td>
<td>05</td>
<td>06</td>
<td>18</td>
<td>96</td>
<td>4.054</td>
</tr>
<tr>
<td>3.</td>
<td>Demography</td>
<td>-</td>
<td>03</td>
<td>02</td>
<td>06</td>
<td>08</td>
<td>19</td>
<td>115</td>
<td>4.279</td>
</tr>
<tr>
<td>4.</td>
<td>Economics</td>
<td>03</td>
<td>02</td>
<td>03</td>
<td>05</td>
<td>10</td>
<td>23</td>
<td>138</td>
<td>5.18</td>
</tr>
<tr>
<td>6.</td>
<td>Industrial Economics</td>
<td>09</td>
<td>04</td>
<td>15</td>
<td>19</td>
<td>32</td>
<td>79</td>
<td>283</td>
<td>17.792</td>
</tr>
<tr>
<td>7.</td>
<td>International Economics</td>
<td>01</td>
<td>-</td>
<td>04</td>
<td>04</td>
<td>04</td>
<td>13</td>
<td>296</td>
<td>2.927</td>
</tr>
<tr>
<td>8.</td>
<td>Labour Economics</td>
<td>09</td>
<td>04</td>
<td>08</td>
<td>20</td>
<td>27</td>
<td>68</td>
<td>364</td>
<td>15.315</td>
</tr>
<tr>
<td>9.</td>
<td>Land Economics</td>
<td>01</td>
<td>03</td>
<td>04</td>
<td>09</td>
<td>-</td>
<td>17</td>
<td>381</td>
<td>3.828</td>
</tr>
<tr>
<td>10.</td>
<td>Planning and Growth</td>
<td>02</td>
<td>04</td>
<td>03</td>
<td>10</td>
<td>16</td>
<td>35</td>
<td>416</td>
<td>7.882</td>
</tr>
<tr>
<td>11.</td>
<td>Public Finance</td>
<td>-</td>
<td>05</td>
<td>03</td>
<td>04</td>
<td>09</td>
<td>21</td>
<td>437</td>
<td>4.729</td>
</tr>
<tr>
<td>12.</td>
<td>Transportation</td>
<td>-</td>
<td>01</td>
<td>01</td>
<td>02</td>
<td>03</td>
<td>07</td>
<td>444</td>
<td>1.576</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>40</td>
<td>41</td>
<td>75</td>
<td>126</td>
<td>162</td>
<td>444</td>
<td>444</td>
<td>99.993</td>
</tr>
</tbody>
</table>

TABLE - 5.3

Yearwise Subject Analysis of Ph.D. Theses
Table 5.3 indicates the development of research in economics in Madhya Pradesh. In economics 444 degrees were awarded till 1995. In the succeeding years, 162 doctoral degrees were awarded in 1991-1995 followed by 126 (1986 - 1990), 75 (1981-1985), 41 (1976-1980) and 40 (1970-1975) doctoral dissertations.

**TABLE - 5.3.1**

Yearwise Ranking Order of Subject Analysis

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Industrial Economics</td>
<td>09</td>
<td>04</td>
<td>15</td>
<td>19</td>
<td>32</td>
<td>79</td>
<td>17.792</td>
<td>17.792</td>
</tr>
<tr>
<td>2.</td>
<td>Agricultural Economics</td>
<td>03</td>
<td>08</td>
<td>19</td>
<td>21</td>
<td>27</td>
<td>78</td>
<td>17.567</td>
<td>35.359</td>
</tr>
<tr>
<td>3.</td>
<td>Labour Economics</td>
<td>09</td>
<td>04</td>
<td>08</td>
<td>20</td>
<td>27</td>
<td>68</td>
<td>15.315</td>
<td>50.574</td>
</tr>
<tr>
<td>5.</td>
<td>Planning and Growth</td>
<td>02</td>
<td>04</td>
<td>03</td>
<td>10</td>
<td>16</td>
<td>35</td>
<td>7.882</td>
<td>73.42</td>
</tr>
<tr>
<td>6.</td>
<td>Economics</td>
<td>03</td>
<td>02</td>
<td>03</td>
<td>05</td>
<td>10</td>
<td>23</td>
<td>5.18</td>
<td>78.6</td>
</tr>
<tr>
<td>7.</td>
<td>Public Finance</td>
<td>-</td>
<td>05</td>
<td>03</td>
<td>04</td>
<td>09</td>
<td>21</td>
<td>4.729</td>
<td>83.329</td>
</tr>
<tr>
<td>8.</td>
<td>Demography</td>
<td>-</td>
<td>03</td>
<td>02</td>
<td>06</td>
<td>08</td>
<td>19</td>
<td>4.279</td>
<td>87.608</td>
</tr>
<tr>
<td>9.</td>
<td>Co-operatives</td>
<td>05</td>
<td>-</td>
<td>02</td>
<td>05</td>
<td>06</td>
<td>18</td>
<td>4.054</td>
<td>91.662</td>
</tr>
<tr>
<td>10.</td>
<td>Land Economics</td>
<td>01</td>
<td>03</td>
<td>04</td>
<td>09</td>
<td>-</td>
<td>17</td>
<td>3.828</td>
<td>95.49</td>
</tr>
<tr>
<td>11.</td>
<td>International Economics</td>
<td>01</td>
<td>-</td>
<td>04</td>
<td>04</td>
<td>04</td>
<td>13</td>
<td>2.927</td>
<td>98.417</td>
</tr>
<tr>
<td>12.</td>
<td>Transportation</td>
<td>-</td>
<td>01</td>
<td>01</td>
<td>02</td>
<td>03</td>
<td>07</td>
<td>1.576</td>
<td>99.993</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>40</td>
<td>41</td>
<td>75</td>
<td>126</td>
<td>162</td>
<td>444</td>
<td>99.993</td>
<td>99.993</td>
</tr>
</tbody>
</table>

Table 5.3.1 presents the ranking of the research areas, in terms of the number of theses completed in economics, over the period 1970 to 1995. The table is also helpful in identifying the research areas which have attracted major and continuing attention in the doctoral dissertation research in the Madhya Pradesh Universities. These appear to be Industrial Economics, Agricultural Economics, Labour Economics, Financial Economics and Planning and Growth. In comparison with these, Economics, Public Finance, Co-operatives, Demography, Land Economics, International Economics and Transportation have been the areas occupying a relatively marginal place in the doctoral dissertation completed in the Madhya Pradesh Universities.
The study revealed that out of the total 444 theses, the maximum number of theses (17.56%) relate to Industrial Economics followed by Agricultural Economics with 17.11%, Labour Economics with 15.76% and Financial Economics 14.86%. The minimum number of 7 theses relate to Transportation.

Table shows that up to 1975 the most popular area of research was Labour Economics (09 theses), but during 1976-1980 it became Agricultural Economics (08 theses); and during 1981-1985 again Agricultural Economics (19 theses); while during 1986-1990; studies relating to Agricultural and Financial Economics were the most popular topics of research with 21 theses; but during 1991-1995 the interest area of research was shifted to Industrial Economics with 32 theses. It may be due to the progress of industrialization in India after 1990.

The research trend in Agricultural Economics is increasing gradually from 1970 to 1995. In 1970-1975 only three theses were produced while it increased to 8 in 1976-1985, and 21 in 1986-1990. The maximum numbers were 25 in the year 1991-1995. Industrial Economics was the subject of research in 8 cases between 1970-1975 and during 1976-1990 it decreased to 4 cases, but in the subsequent periods it again became the subject of research with 15, 19 and 32 cases respectively. Industrial Economics have got the first ranking position if the total theses are counted from 1970 to 1995, Agricultural Economics gets second in order of ranking. On the whole the most popular subject for research in economics has been Industrial Economics (78 theses), followed by Agricultural Economics (76 theses), Labour Economics (70 theses) and Financial Economics (66 theses). Theses may be shown by a line diagram (Fig. 5.3.1).
Ranking Order of Subject Analysis

Fig. 5.3.1
It we plot graphs yearwise for each of the four leading subjects in order of ranking as given in Table 5.3.1 the research trend may be found out easily.

1. Industrial Economics

Industrialisation is an effective instrument of economic growth and welfare. Manufacturing activity has a high potential for contributing to the process of rapid economic development and economic growth. In fact, the development of a country is taken to be synonymous with industrial development. It is believed that the dynamic progress of an economy ultimately depends on modern industrialisation. Industrialisation is important for an overall growth of the economy as would be clear from the raising people’s incomes. Industrialisation generally provides a firm basis for a rapid and continuous increase in the incomes of the people. This is because unlike agriculture, industries mainly depend upon human efforts rather than on the vagaries of nature. By expanding the physical stock of capital and by improving human capabilities, industrial production and productivity can be increased. These ultimately lead to increased incomes in the economy. High potential for growth - It has been argued that industrial sector holds the key for a rapid growth of an economy and that if the less development economics have to grow, they should go for industrialisation on a massive scale.

Meeting ever-increasing demand - As per capita income increases the demand for food items does not increase proportionately but the demand for industrial products increases more than proportionately. This demand can be met by increased industrial production only.

As shown clearly in graph, the period after 1980 was marked by a sharp acceleration in industrial growth. In addition to the phenomenon of acceleration in industrial growth the research work in field of industrial economics also become most important factor in new millennium. The Graph 5.3.1.1 presented the development of research trend in field of industrial economics.
The graph 5.3.1.1 points out that research trend in industrial economics is continuously increasing, though it was felt down during the period 1976-1980, in comparison with the research trend during 1970-1975. But after 1980 it never turned back and its progress is continued.
2. Agricultural Economics

Agriculture is the most important sector of Indian economy. About two-third of the Indian population depends directly or indirectly on agriculture and about three-fourth of population lives in villages. Those who do not live in villages are connected with this sector in many ways trading in agricultural products and working in agro-based industries, etc. But this sector is also underdeveloped. For its development it is necessary that not only this sector progresses but the economy also develops. Agriculture has a lot to contribute to the development of the economy. It is, therefore, necessary that we should first know the role played by this sector in economic development of the country.

Agriculture plays a pivotal role in the development of Indian economy. Its role and contributions are - Share in national income, employment potential, potential for industrial development, importance in foreign trade, consumption basket and agriculture, importance for government budgets, importance for trade and services.

Research trend in Agricultural Economics presented in Graph 5. 3.1.2 brings out some continuously research development in the field of agricultural economics.
Yearwise Ranking Order of Agricultural Economics

Fig. 5.3.1.2
3. Labour Economics

As a sub-system of economic science, "labour economics" derives its theory and methodology from the accepted principles of economics. The central theme of economic science relates to an optimum utilization of resources to achieve maximum consumer satisfaction through the productive process. Of all the productive resources, labour is very special. The problems of labour economics are among the basic elements in the economic and social life of any country, and have commanded growing attention not only of the Industrialists and work people, but of the government and public also. These problems are of a dynamic character and changing in nature. Their growing complexity baffles not only laymen but scholars and technicians as well. Therefore, a proper understanding of the problems such as, characteristics of labour, trade unionism, collective bargaining, industrial disputes, social security, welfare activities, wages-method of wage payment and wage rates, bonus and profit sharing, working conditions, industrial housing, employment of women and child labour and others are discussed in labour economics.

The central theme of labour economics is not simply restricted to the problem of allocation, but extends to problems of growth and development of human resources. Thus, labour economics may be defined as a body of systematic knowledge which deals with the pricing, allocation and development of scarce human resources with a view to optimizing net economic welfare.

The research trend in labour economics is presented in graph 5.3.1.3, and from this graph it is seen that like researches in industrial economics, it also started its progress after the year 1980 which is co-similar with industrial economics as pointed out in graph 5.3.1.3.
Yearwise Ranking Order of Labour Economics

Fig. 5.3.1.3
4. Financial Economics

Financial economics is a generic term applicable to a vast array of topics relating Finance with Economics. It is well known that, finance is a lubricating mechanism to the Economic Activity. Finance, under the head of capital is becoming a factor of production. Finance under the head of inputs is becoming a factor in input-output matrix. Finance under head of money is becoming a measure of value, medium of exchange and a store of value. In its function as a medium of and measure of value, its use is for transaction and precautionary purposes, wherein cash is needed for all and by all. Cash is a financial asset and current asset. In its store a value function, money is an asset - A financial asset and one of the facets of wealth. Wealth is a basket of assets both physical and financial in one's procession. Finance and wealth are also inter-related, and economics is the study of factors which determine the wealth of country and its growth. The importance of finance in economics can hardly be over-emphasised in view of the above facts. Economics is considered a handmaid of ethics, but in the modern technology economics is a handmaid of finance.

The progress and trend of research in financial economics has been shown in graph 5.3.1.4. The research trend was constant during the year 1970-75 and the year 1976-80. But like other disciplines of economics it also accelerated its research progress from 1981 onwards with a little break in the year 1991-95.
Yearwise Ranking Order of Financial Economics

Fig. 5.3.1.4
Research is the most remarkable phenomenon of development in economics. The subject economics has vast range of interest and it attempts for development of their activities. During the last few years, “Economics” has played significant role as far as the subjects derived from knowledge are concerned. Mainly economics is the science of choice among scarce means to accomplish unlimited ends. It deals purely data on output, income, employment, expenditure, interest, rates, prices and related magnitudes associated with individual activities of production, consumption, transportation and trade.

The study indicates that the most concentrated subject areas for researches are Industrial, Agricultural, Labour and Financial economics in Madhya Pradesh Universities. But it may be noted that some of the areas of economics are becoming obsolete, e.g. land economics in which no thesis has been submitted in any university after 1990.
Bibliographical References

[1] BRADFORD (S C). Sources of information on specific subject. Engineering. 137, 3350; 1934; 85-86. Quoted in ALAFIATAYO (B O) and KADIRI (J A). The periodical literature of health economics. Journal of Library and Information Science. 15, 1; 1990; 74-86.


