

## Iran's Network Cities with Emphasis on Spatial Interpretation of Money Orders

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### 1- Introduction

This study deals with spatial organization of urban settlements in information era. It is being argued that the formation of network cities is based on the gradual co-operation between cities. This is being supported by the presence of sustainable and rapid transportation and infrastructures. This study particularly pertains to the geographic pattern of inter-urban financial flows between 1384/6/3 till 1385/6/3. The major objective is to investigate network relationships among cities with population over 100/000. This study, is mainly based on principle component analysis. Furthermore, in order to present Tehran, its overall dominance over the rest of cities, the researchers applied both dominant flow analysis as well as spatial interaction models.

### 2- Theoretical Bases

The Theoretical framework indicates the compatibility and comparison between urban hierarchy as opposed to network system. Dilman (1993), Comagnu(1994), and Baten (1995) are the major proponents urban network approach. They argued that the links between urban settlements are based on complementarity and " participation" rather than thresholds, demand, and distance. It is further concluded that these links dictate kind of vertical urban hierarchical relations based on horizontal urban networks. That is, theoretically speaking, urban hierarchical relations in fact is complementary with urban network relations. Pamin (1993) further argued that urban networks may be established based on local welfare. He believes that major processes that control trends in urban system are fairly invariable in as much as urban system are the product of historical trends rather than incidental ones. This in turn, is associated with concentration of population and economic activities, competent relation of cities, and space- time contraction. Pamin believes those three factors are being held almost at global level.

Castetels (1993) basically holds the same view. He believes all of the global regions are being benefited from global economy. That is, there exists parent urban hierarchy relationship which are being controlled by major economic-financial nodes as well as information technology. Other opponents of this approach believe that factors such as scale, previous distribution of economic activities, population resources, demand for information, organizational structures are determinant factors regarding spatial consequences of remote relations communications. Taking those into consideration, we can not come up with final generalization.

### 3- Discussion

According to Iran, s urban hierarchical structures, cities with population over 100/000 may be classified into three levels. Tehran accomodates at first and top level.

Provincial cities or metropolitans are bieng classified in the second level. This is followed by towns which are located at third level. Inputs of this study are composed of money orders released by Meli-Bank between 1384/7/01 till, 1385/6/3. Table 1 shows these inputs for 70 cities along with the computation of production setting ( $D=C-c$ ) and command and control ( $C=Ln Cc/Cs$ ).

According to this table, high volume of flows is associated with Isfahan and Nadjafabad and vise – versa which corresponsed with 48067. This is followed by flow between Haydareeye and Mashhad with the corresponding value of 44945. Even though, large cities are the major reciepients of volume flow, however, this by itself would not prove the hierarchical relationship. That is, going down the order of cities according to their population size, those populated ones are not corresponded with high volume of flow. Out of 69 cities (excluding Tehran), Mashhad as the most populus city with population of 2427316 is associatrd with 227572 money order (9. 69% of total volume of money orders). This is followed by Isfahan as a second populated city with 1602110 and 10. 18% respectively. This fact may be proven in other cities as well. Isfahan, Mashhad, Ahvaze, Tabriz, Oroomeeye, sheeraz, Karaj, Sari, and Babol all together are associatiod with 47. 56% of total money orders.

### 4- Conclusion

This study indicates flow mechanism of money orders among 70 cities. It is summarized that, Tehran, Isfahan, Mashahd, Ahvaze, Tabriz, Oroomeeye, Shiraz, Karadj, Sari and Babol are the major command and control points. According to spatial interaction analysis, "distance" and "population " of senders and recievers of money orders are two prominent variables in this regard. However, there exist a low trace of competiveness and cumulative effects. That is, clusters of cities do not necessarily correspond with high volume of money orders. According to principle component analysis, among the selected cities, Tehran, Isfahan, Mashhad, Tabriz, , Oroomeey, Ahvaz are basically capable of explaining nearly 73. 3% of the variation. However, Tehran is capable of explaining only 33. 6% of the total variation. According to dominant flow analysis, virtually all of the cities are being dominated first by Tehran as a major command and control point and second by their corresponding provincial towns.

### 5- Suggestions

This study, at first hypothesized the existance of network cities in selected cities. However, that was not the case. This fact just proved in Tehran and major mentioned metropolations. This is associated with the existance of primate city concept and the historical formation trend of cities in developing countries such as Iran. Finally, it suggests that there exists local clusters and corresponding significant financial flow. This research suggest further investigation regarding network cities. Taking into consideration the importance of network cities it requiers planning and policy making techniques in order to get advantage of positive aspects of this phenomen.

**Key words:** Network cities, Iran, Spatial Interaction, Remote Communications, Money order flow