IV Concepts Related to Webers Model

A. Weight Gaining vs Weight losing industries.

1 Each factories had to consider their proximity to the raw materials they needed.

a) These early factors had spatially-variable costs, costs that changed depending on the factories location.

b) A factory using heavy or perishable raw materials in its production process might be built as close as possible to its source of raw materials to minimize the cost of transporting the materials into the factory.

2. Weight-losing processes are those manufacturing processes that take raw materials and convert them into a product that is lighter than the raw materials that went into making it.

a) Paper production is an example of weight losing production: paper mills are located near forests, the source of the heavy wood the factory converts into lighter paper products to be shipped long distances.

b) When weight-losing industries locate near the raw resource supply, they are said to have a material orientation.

3. Weight-gaining processes take raw materials and create a heavier final product.

a) Beverage bottling is a weight gaining industry

b) Early factories involved in weight-gaining processes were built near the market place because the product was heavier to transport in its final form.

c) When weight-gaining industries locate near the place, where the heavier product will be sold, that industry is said to have a market-orientation.

B Footloose Industries

1 Footloose industries are not restricted in where they can locate b/c of transportation costs.

a) Some industries maintain the same cost of transportation and production regardless of where they choose to locate.

2. These industries have spatially fixed costs, costs that remain the same no matter where they choose to locate.

3. These industries often produce lightweight products of extremely high value, like computer chips.

C. Labor Costs and the Substitution Principle

1 The Weber model assumes that the cost of labor is a key factor influencing where industries choose to locate.

2. Included in labor considerations is the availability of industrial capital, which consists of machinery and the money to purchase the tools and workers the factory needs.

3. The substitution principle applies when an industry will move to a place to access lower labor costs, even though transportation costs might increase as a result.

a) In the long run, these companies will save more % of the cheaper labor

D. Agglomeration

1. Agglomeration occurs when industries clump together in the same geographic space.

a) Alfred Marshall first identified the benefits of agglomeration in industrialization England in the late nineteenth century

2. Factories that are in the same area can share costs associated with resources such as electrical lines, roads, pollution control, etc.

3. Agglomeration economies occur when the positive effects of agglomeration (such as lower costs for industries) result in lower prices for consumers.

a) Localization economies are a category of agglomeration economies that occur when many firms in the same industry benefit from clustering close together - for example these firms get to share skilled labor talents living in the same region.

b) Urbanization economies are another category of agglomeration economies that occur when large populations in urban areas benefits from clustering together b/c they get to share infrastructural elements, such as power lines & transport systems.

E. High-Tech Corridor and Technopoles

1. A high-tech corridor is a place where technology and computer industries agglomerate
   a) Ex: Silicon Valley
2. A technopole is another name for a region of high-tech agglomeration formed by similar high-tech industries seeking to locate in a shared area so that they can benefit from shared resources. like sharing a highly trained workforce, and utilizing similar support businesses (consulting services) like computer repair shops and electrical wiring services, etc.

F. Backwash Effects

1. Backwash effects are negative consequences of agglomeration that can occur when other areas suffer out-migration (brain-drain) of talented people who are moving to a technopole or other hot spot of industry agglomeration

G. Locational Interdependence

1. Locational Interdependence is the theory that industries choose their locations based on where their competitors are located.
2. Industries want to maximize their dominance of the market so they are influenced by their competition.
   Ex Gas Stations off a highway exit.
3. The idea is that the gas stations know that one gas station cannot serve all the cars needing gas, so agglomerating around the exit allows them a slice of the market share.

H. Deglomeration

1. Deglomeration is the "unclumping" of factors b/c of the negative effects and higher costs associated with industrial overcrowding.
2. Deglomeration often occurs when an agglomerated region becomes too clustered, too crowded, and when such agglomeration negatively affects the industries such as pollution, traffic, and strained resources.