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Course: M.A. Geography

Paper Code: MGEO-CC207

Paper Name- Resource and Economic Geography

Semester-II

Topic- Smith's Model of Industrial Location

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# Smith's Model of Industrial Location

# Introduction

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- ▶ D. M. Smith presented a simple model of industrial location in his book “**Industrial Location**”, published in **1971**.
  - ▶ His model was based on his studies of Steel Mill in Brazil.
  - ▶ The theory explains the idea of spatial margin locations.
  - ▶ Location inside the margin would result profit for the organization, while outside would result into loss.
  - ▶ The theory is based on Spatial Margins of profitability of an industry , so it is known as ‘**Spatial Margins Theory**’.
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# The Theory

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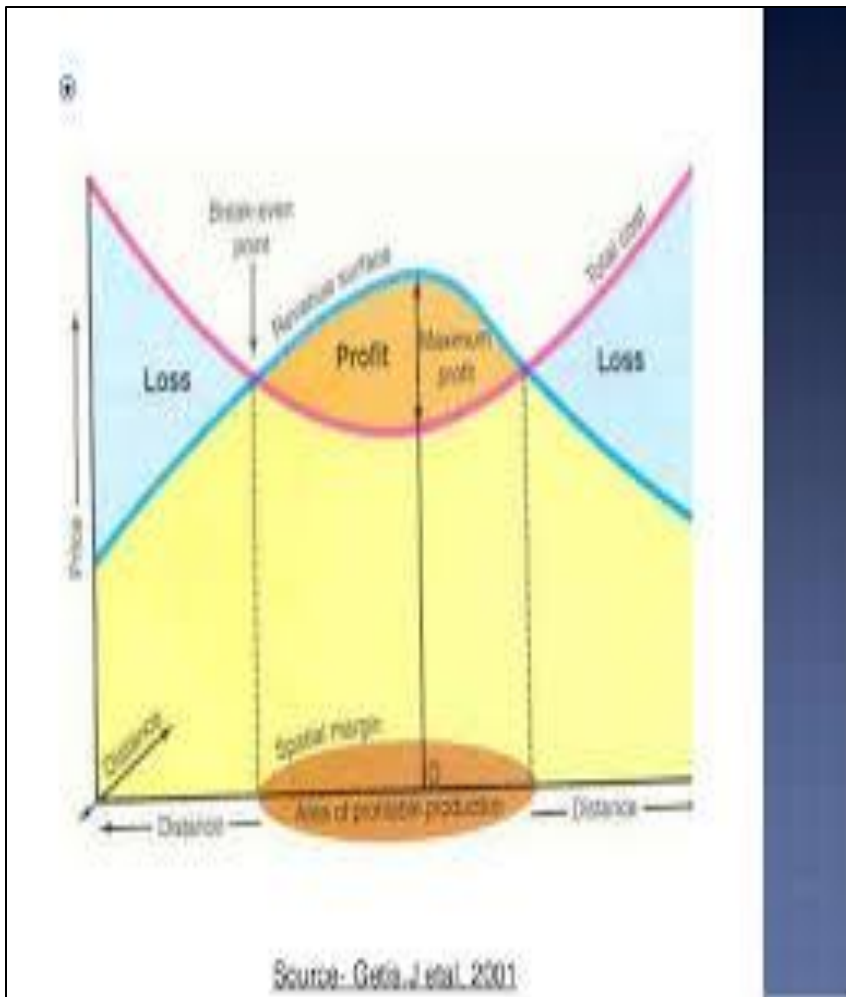
- ▶ Spatial Margins refers to a combination of both the production and revenue feasibility in a given linear market area.
- ▶ The theory incorporates the significant element of sub-optimal behaviour of locational choice in a given area.
- ▶ It did not put emphasis on least cost or profit maximisation location of rational economic man.
- ▶ Smith assumes dynamic interaction between production costs and revenue in space economy.



- ▶ According to him, manufacturing costs vary in different situations and locations, so that the revenues and profits will vary within the feasible margins.
- ▶ Smith attempted to explain his theory through setting a locational flexibility within a spatial range as delimited by intersection of space cost curve and space revenue curves.
- ▶ This can be explained with the help of graphic presentation.



# Spatial Margin of Profit



- ▶ In the figure x axis shows that the distance increasing from left to right and y axis denotes quantity of costs and revenues.
- ▶ Cost is indicated by red line and revenue by blue line. Place of profit is shown by orange line.
- ▶ At two points quantity of cost and revenue will be equal, while there is a point of profit maximization.

- ▶ Line is drawn from the point of profit maximization towards x axis.
- ▶ The point touching the axis axis is the ideal location while the circles drawn around that point is known as spatial range of locating one industry.
- ▶ Theoretically, only one farm can be established at the point of maximum profit, while all others farms are required to have sub-optimal locations within the ,argin of profit.
- ▶ The farms established at the sub-optimal level can also make profits and run successfully which is shown by drawing circle on x axis.



# Critical Appreciation

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- ▶ Smith has successfully considered the dynamic interaction between production costs and received revenues in space economy.
- ▶ His spatial margin approach combines both the production as well as revenue side.
- ▶ But the theory is criticized on the ground that spatial costs and revenues for an industrial farm are not linear.
- ▶ The market demand factors are not uniform with distance due to consumer's income, taste, substitution by new products and changing interaction of supply and demand side.





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**Thank You**

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