



SEE Purchase Decision (Version 1.0.0)

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Abstract: Model to estimate the wealth distribution in a society with the SEE model.



The Fermi distribution defined the probability of purchasing a product with a wellbeing value of ω :

$$p_i = \frac{1}{e^{-\beta\omega_i + \alpha} + 1}$$

The wellbeing is a function of the price ε and decision criteria s :

$$\omega_i = \varepsilon_i + \vec{\mu} \cdot \vec{s}_i$$

The factor α must be choose to fulfill the condition:

$$\sum_i p_i = 1$$



α , β and μ must be calculated to fit the equation

$$-\beta\omega_i + \alpha = \ln \left(\frac{1 - p_i}{p_i} \right) \equiv z_i$$

or

$$z_i = -\beta\varepsilon_i - \beta\vec{\mu} \cdot \vec{s}_i + \alpha$$