A Quick Introduction to Transaction Costs and Asset Specificity

Transaction Cost – Analogous to friction in mechanical systems. Costs arise when parties to an exchange operate disharmoniously, or there are frequent misunderstandings and conflicts lead to delays, breakdowns, or other malfunctions. Transaction cost economics is concerned with the examination of the comparative costs of planning, adapting, and monitoring task completion under alternative governance structures.

Behavioral Assumptions – Two assumptions of transaction cost economics: First, the recognition that human agents exhibit “bounded rationality.” Bounded rationality means that humans are limited in their ability to formulate and solve complex problems and in their ability to process (e.g., receive, store, retrieve, transmit) information. Given bounded rationality, it is impossible to devise comprehensive or complete “state-contingent” contracts—contracts that anticipate all possible contingency and prescribe a set of rights and obligations for each contingency. Therefore incomplete contracting is the best that can be achieved. Second, humans are often opportunistic. They will often act in a self-interested way that is not necessarily in the best interest of both parties to a transaction.

Asset Specificity – According to Oliver Williamson, one of the founders of the transaction cost economics school, “asset specificity” is the most important characteristic of a transaction. Asset specificity describes the degree to which investments are specialized to a particular transaction. When a party develops an asset (physical or human) specifically for a transaction, the risk is high that another party to the transaction will act opportunistically at the expense of the party that developed the asset. For instance, if an employee develops talents that are valuable only in a particular job with a particular employer, there is a danger that the employer will decline to pay her according to the value of her contribution to the firm, since the employer knows she cannot sell her skills elsewhere. The employer can pay the employee just a dollar above what she could earn in another job, where her skills will not be used. Similarly, if a party to a contract produces a piece of machinery that has only scrap value elsewhere, there is a danger that the counterparty to the contract will not pay anything more than the scrap price for the machinery. Assets that are unspecialized among users pose few risks of opportunistic behavior since buyers can easily turn to alternative sources and sellers can sell output intended for one buyer to other buyers without difficulty. Conversely, assets that are specialized among users “lock-in” buyers and sellers, since buyers cannot turn to alternative sources of supply and suppliers cannot find alternative buyers willing to pay an equivalent price for the assets. Accordingly, when asset specificity and the risk of opportunism is high, buyers and sellers will devise contracts that attempt to deal with the potential for opportunistic behavior. In the face of asset specificity, long term contract and vertical integration are common. Where asset specificity low, parties will more often rely on the spot market.

Asset specificity can arise in any of three ways: (1) site specificity (e.g., co-locate assets to economize on inventory and transportation costs), (2) physical asset specificity, and (3) human asset specificity.

1) *Site specificity* – When successive stages of production are located in close proximity to one another, common ownership generally results. This occurs because when assets are immobile, the set-up or relocation costs are large – so as to hinder relocation. Once an asset is in place, owners of the asset are may only use that asset for a single purpose for the life of the asset.

2) *Physical asset specificity* – If the assets are mobile and their specificity is attributable to their physical features (specialized parts or components), market procurement of the particular product might or might not be possible. If the seller has no other buyer for his particularized part or component, then the seller's assets have physical asset specificity.

3) *Human asset specificity* – Specialization in a particular field may give rise to human asset specificity. Where an employee had developed special skills that are useful only to a particular employer, the employee has developed a degree of human asset specificity.

Asset Specificity and Contracting – If assets are nonspecific, then the risks of opportunism are low. With many suppliers and many buyers, markets are superior in terms of production and governance costs. When assets become semi-specific, long-term contracts may be used to deal with the potential for opportunistic behavior. Finally, vertical integration will displace markets as assets become increasingly specialized.

Asset Specificity and Contracts

Degree of Asset Specificity	**Contractual Response**
Non-specific	Spot Market
Semi-specific	Long-term contracts
Highly specific	Vertical Integration