

Understanding Economies of Scale, Scope and Knowledge and Their Importance to Successful Healthcare Delivery Organizations

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BACKGROUND: Healthcare delivery organizations must transform from a cottage industry of independent craftsmen into an organized business whose objective is the delivery of high value healthcare services. To do this, healthcare delivery organizations must execute on business plans that accommodate both larger scale operation and greater organizational complexity. Accordingly healthcare providers and managers need to understand how strategic economies resulting from larger organizational scale carry the potential to either help or harm the bottom line.

HYPOTHESIS: Inference from transaction cost theory links a firm's scale to the average cost of production, giving rise to two familiar strategic concepts that must be understood by healthcare managers and executives. These strategic constructs are economies of scale and scope. We believe that a third strategic economy, the economy of knowledge, may also be inferred from transaction cost theory. Optimal exploitation of these strategic concepts is not a given since both larger scale and broader scope increase organizational complexity. This complexity can lead to diseconomies of scale, scope or knowledge that can obliterate any economic advantage.

METHODS: Beginning with the original definition of transaction cost theory¹, a rationale to understand these three organizational constructs will be developed and explained. Hypothetical but constrained examples from the service industry will be used to demonstrate how these strategic constructs can be leveraged to improve an organization's economic performance. Examples will also be presented that demonstrate how diseconomies of these strategic constructs can harm an organization's performance. With this background, the MD Anderson Cancer Network will be used as an example of organizational execution along all three axes of these strategic economies.

RESULTS: These strategic economies form a dimensional organizational diagram. Large scale becomes the X axis, where excellent patient care is delivered at lower unit cost. Increased scope becomes the Y axis, where the same infrastructure is used to deliver care for a variety of illnesses at lower cost. Increased organizational knowledge is the Z axis. When this knowledge is immediately available across the organization, the organization's value chain is improved. In a healthcare organization, current practices are improved and new treatments are developed.

¹ Coase, R.A., "The Nature of the Firm", *Economica* 4(16) 386-405. 1937