

Quantitative methods essay



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Pricing strategies are some of the basic procedures to achieve better returns. In these modern times, the use of quantitative analysis can be incorporated in pricing techniques. Shadow pricing in business is the maximum price which the company is willing to pay to purchase an extra unit of a limited resource for production.

It is an opportunity unit which will be lost by not adding additional capacity resources. On the other hand, a Dual Price is actually a dual variable which provides the values for a specific primal constraint (Mathematical Programming Glossary, 1996). Having a dual price is actually having two prices for a single unit of service. These prices can be charged according to certain criterion demographics. Basically, the Shadow price and Dual Price are both related in a sense that they constitute a definite influence to an optimization procedure. The shadow price represents the Lagrange Multiplier value during an optimization procedure.

Meanwhile, the Dual Price corresponds to the infinitesimal change in the constraints. The Shadow price and the Dual price form a linear combination gradient for optimization. The most crucial application of the Shadow and Dual Prices are in the business sector. These two factors provide helpful insights to business owners in targeting a specific production objective. The Shadow and Dual price variables are actual combinations which will identify the value that a company can spend given a constraint amount of resource or labor.

The Shadow price for example provides a ‘quota’ rate. If the value exceeds the shadow price, the objective optimization lessens. On the other hand, if

the value is less than the Shadow Price, then the optimization objective increases. All of these fluctuations in values correspond to actual money investment and profit margins. Using an effective way to consider business variable behaviors can help in maintaining a sound mode of transaction.

To achieve this, Shadow and Dual Pricing can be utilized for optimum returns.