Abstract

The problem of online trading is lack of trust. Usually it results into difficulty in online transaction between buyer and seller. Trust is defined as willingness of a person to be vulnerable in a circumstance that he/she cannot control with the positive expectation that the trustee will not take undue advantage of the trustor. This definition was used to model trust for the online transaction environment bearing in mind the contribution of institutional-based trust, trustor-trustee experiences and other factors like ease of use of websites and detailed description of products and service provided by the e-merchant. Online trust was quantified mathematically by combining both conception and operational construct into one equation. A numerical analysis algorithm called Gauss-Sidel was used to evaluate the online trust value at every attempt at using online transaction. This helps online consumers to make decisions as to whether to transact online or not. The result of this research work was able to provide a platform for quantifying trust in an online transaction.

**Index Terms**

Computer Science | Security
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**Keywords**

Trust | reputation | intended | expected and actual behaviours