A valued difference field \((K, \sigma, v)\) is a valued field \((K, v)\) with a field automorphism \(\sigma : K \to K\), satisfying \(\sigma(\mathcal{O}_K) = \mathcal{O}_K\), where \(\mathcal{O}_K\) is the ring of integers. The theory of such a structure depends on how the automorphism interacts with the valuation function. If \((K, \sigma, v)\) satisfies \(v(\sigma(x)) = v(x)\) for all \(x \in K\), the valued difference field is called isometric. The model theory of such structures has been studied by Luc Bélair, Angus Macintyre and Thomas Scanlon. If \((K, \sigma, v)\) satisfies \(v(\sigma(x)) > nv(x)\) for all \(n \in \mathbb{N}\) and for all \(x \in K^\times\) such that \(v(x) > 0\), the valued difference field is called contractive. The model theory of such structures has been studied by Salih Azgin. I am going to talk about a more general case, which incorporates the above two cases, and which we call multiplicative. A multiplicative valued difference field satisfies \(v(\sigma(x)) = qv(x)\), where \(q > 0\) is interpreted as an element of a real-closed field. For example, \(q\) could be 2, i.e., \(v(\sigma(x)) = 2v(x)\). I will give axiomatization for such theory, prove an Ax-Kochen-Ershov kind of result and show that the theory admits relative quantifier elimination. (Received September 22, 2010)