MEASURING DEMING MANAGEMENT MODEL IN THE CONTEXT OF SPORTS TOURISM ORGANIZATIONS

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Abstract

Concepts related to service's quality have not evolved in the same way as those related to industries. Nevertheless, total quality management's theoretical basis and methods allow its use in both sectors. This study is an application of the Deming Management Model, developed by Anderson et al (1994), to the context of sports tourism industry. The referred method sustains that leadership efforts aiming at the simultaneous creation of a cooperative and learning organization facilitate the implementation of process-management practices. These, when implemented, support customer satisfaction and organizational survival through sustained employee fulfilment and continuous improvement of processes, products, and services (Anderson, et al., 1994). Previous studies support it's applicability in manufacturing (Rungtusanatham et al., 1998) and services (Douglas & Fredendall, 2004; Fisher et al., 2005). Despite the existence of worldwide practical evidence that proves the model's effectiveness (Rungtusanatham et al., 2005), the fact is that empirical research is still scarce. Therefore, the following goals have been set: a) corroborate Deming's model applicability, proposed by Anderson et al. (1994) to sport tourism industry; b) develop and verify the applicability of the proposed measurement model.

After analyzing the existing literature on the development of scales related to TQM practices, it was clear that the concepts underlying the model proposed by Anderson et al. (1994) would be better operationalized by using scales which had been previously published. Hence, they were translated and adapted to the context. The empirical analysis was structured in two studies: expert's validation, pre-test, exploratory factor analysis and confirmatory factor analysis.

In study 1, the measurement's model was developed and specified (51- items questionnaire, based on seven previously tested and validated scales). This was empirically tested in two phases: a pre-test (27 public and private service organizations) and an exploratory factor analysis 72 sport tourism centers (STC) located in IRL, UK and USA. In study 2, the final questionnaire (29 items, divided into seven scales) was validated, using confirmatory factor analysis (126 STC, located in the Iberian Peninsula).

The measurement model, considering the context's specific features like the model's complexity and the sample's size, showed a highly significant goodness of fit and revealed specific evidence of validity. The presented results are the outcome of two samples' analysis and allowed, through a confirmatory factor analysis, to cross ratify the proposed measurement model. Taking into account the type of analysis which was developed, we can affirm that the data fulfill, satisfactorily, the assumptions of normality, homoscedasticity, linearity, multicollinearity and absence of correlated errors.

Our results indicate that scales display validity of expression, convergent validity and discriminant validity. Validity of expression was confirmed by specialists' assessment and pre-test. The analysis of the factor loadings, extracted variance and the reliability indices leads to the conclusion that the proposed model presents convergent validity. The model's discriminant validity was verified through: a) the comparative analysis of the extracted variance's percentage and the estimator's square of the concepts' relationship; b) comparative analysis of the goodness of fit values among the identified competing models and; c) the absence of significant cross-factor loadings.

The Measurement Model (MM), in which all concepts are represented by three or more items, revealed itself as over-identified (df = 356) and displays acceptable goodness of fit values. The re-specification process of the MM allowed to eliminate the non-significant parameters and permitted multicollinearity's correction. This process preserved the constructs' and the measurement's model theoretical integrity. The resulting MM discloses adequacy of the estimators parameters and the GOF indices indicate a good fit [RMSEA = 0,049;   =1,302; CFI=0,96; TLI =0,95].

Summing up, taking into account the context's specific features, the model's complexity and the sample's size, the proposed MM holds a high goodness of fit, also revealing specific evidence of construct's validity. Altogether, these features allow us to conclude that the proposed measurement model is valid for the Sport Tourism Centers' context, observing its good measurement properties and consistency.

This work incorporates several original aspects. The highlight goes to the fact that this is one of the few studies that applies Deming's Management Model, proposed by Anderson et al. (1994), to service organizations. Furthermore, it is the first that studies its applicability to tourism, sport and sport tourism contexts.

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