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# FLOW EXPERIENCE: NEW APPROACHES FOR CONCEPTUALIZATION AND MODELING OF A MULTIFACETED CONSTRUCT

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## SUMMARY

The flow experience has gained increasingly more attention in marketing research. So far, it has mainly been used to explain the impact of commercial websites, software use or the analysis of marketing events. There have been several attempts to develop a detailed definition, conceptualization, and operationalization of the construct. However, these findings often encounter problems in terms of content validity. One problem regards a blurred conceptualization of flow. Either only some of the facets are considered or further constructs describing flow are added. A second problem can be identified in respect to different views of the distinction between reflective and formative facets of the flow construct, its antecedents and consequences. A third problem area concerns the modeling of this multifaceted construct. Based on literature review and three empirical studies, the authors developed a revised and valid conceptualization of flow and examined several approaches of modeling multifaceted constructs. For that, the framework of Bagozzi and Heatherton (1994) was applied.

### Empirical Studies

To clarify the conceptual framework and to examine the developed scale, two pilot studies were conducted

with spectators of the FIFA World Cup Germany 2006. The data for the main study was collected with the help of an online questionnaire using participants of the Massively Multiplayer Role-Playing Game “World of Warcraft.” The final sample of 618 respondents was used to compare the different approaches of modeling multifaceted constructs and their adaptation to the flow construct. The parameters of the models were estimated with the help of CFA.

### Conceptualization of Flow

Reviewing the literature, the mainly used facets were taken into account for this conceptualization in order to represent the construct as a whole. To distinguish formative and reflective facets (see Table 1), the authors adapted appropriate decision rules by Jarvis, MacKenzie, and Podsakoff (2003).

Some facets neither build manifestations of the construct (reflective view) nor the elimination of these facets necessarily alters the conceptual domain of the flow construct (formative view). Hence, it seems to be reasonable to separate these facets from the construct as antecedents. The classification of the facets Control and Concentration can be termed both as reflective facet and antecedent. Therefore, both views were considered. With respect

**TABLE 1**

Reflective Facet	Formative Facet	Antecedent	Consequence
<ul style="list-style-type: none"> <li>• action-awareness merging</li> <li>• loss of self-consciousness</li> <li>• transformation of time</li> <li>• concentration on task at hand</li> </ul>	<p>–</p>	<ul style="list-style-type: none"> <li>• clear goals</li> <li>• unambiguous and seamless feedback</li> <li>• challenge -skill balance balance</li> <li>• convenience on task at hand</li> <li>• control</li> </ul>	<ul style="list-style-type: none"> <li>• autotelic experience (enjoyment, positive subjective experience)</li> </ul>

to their perceived control, the results of the empirical studies showed no distinction between respondents who experienced flow and those who did not. Hence, this facet should only be conceptualized as an antecedent of flow.

In conclusion, the following definition can be derived. Flow is a holistic experience, explaining the state in which the acting individual is absent-minded, loses all sense of time while being highly concentrated and having the impression of its consciousness and action merging.

### Approaches Representing Flow as a Multifaceted Construct

Comparing the different fit indices ( $\chi^2$ , RMSEA, SRMR, NNFI, CFI, PNFI, CVI), it can be concluded that the analyzed approaches that do not make any distinction between the various facets of flow have to be rejected. Moreover, it can be constituted that all approaches reflecting the variety of a multifaceted construct in one or another way (see Table 2) can be supported.

<b>Approach</b>	<b>Description</b>
I Partial Aggregation with Hierarchical Organization of Facets	The facets are organized hierarchically as indicators of an underlying factor. The indicators of each facet are summed up as indices and load as indicators on a higher order single-factor (flow).
IIa Total Disaggregation First-Order	The facets are formed as correlated latent variables. Each item is used to operationalize its respective facet.
IIb Total Disaggregation Second-Order	The facets are organized as first-order factors. The second-order factor can be thought as an abstract representation of the overall flow construct.

In summary, the following practical implications can be deduced: Both total disaggregation models (II) can be used if the researcher wants to focus on the structure of the flow construct. If the aim is to integrate the flow construct into a higher-order structure, one can choose between two approaches. Focusing on the impact of the respective facets on other key constructs, the first order approach

(IIa) can be suggested. The partial aggregation model (I) would be useful to analyze the relationship between the flow experience as a global construct and other key constructs. Hence, due to its lower complexity, the partial aggregation model seems to be the most practicable alternative to the total disaggregation second order model. References are available upon request.

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