D Development of the explanatory UGB model

Having specified user generated branding (UGB) and its application space, the following section deals with the development of a conceptual framework as a basis for empiric inquiry. Given the management orientation of this thesis, the role of sponsored UGB programmes shall be investigated. The objective is to validate sponsored UGB programmes as new instruments within the brand communication mix.

Since the research objective comprises the interrogation of causal interdependencies, the causality term is explained first. Then, in response to the second research problem, determinants of attitude toward the sponsored UGB programme shall be identified. This step serves primarily at characterising the new construct of UGB attitude and is considered a prerequisite for the exploration of the third – and main – research problem of UGB effectiveness. In order to derive hypotheses regarding the effects of sponsored UGB programmes, a reference framework is set up, pointing out the necessity of communication effect analysis and introducing existing models from advertising and brand relationship research. The identified constructs and interdependencies are then related to the UGB specific research problem and transferred to the graphical and mathematical structure of a comprehensive structural equation model. The objective is to develop a UGB effectiveness model which enables quantitative validation of the assumed causal relationships.

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1 A hypothesis is a tentative proposition—a hunch, assumption or guess in most cases about a relationship between two or more variables—whose validity is unknown and is thus to be tested through an inquiry (see among others BLACK/CHAMPION (1976), p. 126; GRINNELL/STOTHERS (1988), p. 200; KERLINGER (1986), p. 17).

2 A structural equation model is a practice of causal analysis. For explanation see chapter D 0 and E 2.2.1.
1 Understanding of Causality

This study follows the causality definition by BLALOCK assuming that variations of a variable $X$ cause variations of a variable $Y$ ($X \rightarrow Y$). According to scientific theory, there are four conditions for considering a variable $X$ a direct cause of a variable $Y$: First, if $X$ changes, a change in $Y$ must be regularly observed. Second, the change in $Y$ must chronologically succeed the change in $X$. Third, there must be a true dependency between $X$ and $Y$ rather than a spurious correlation caused by a third variable. And fourth, the hypothesis that $X$ brings about change in $Y$ must be derived from theory. Since those strict requirements are only guaranteed in experimental research designs, possible deficits in condition 2 and 3 may be balanced by applying a careful theoretical foundation.

Causal relations may be formally described by the terms covariance and correlation, measuring how much two variables change together. If the variables $x_1$ and $x_2$ are independent, then their covariance $s(x_1, x_2)$ is 0. If the values of the variables tend to the same or contrasting direction, the covariance is above or below 0. Since there is no defined interval, the absolute values of covariance do not indicate the strength of the relation between the two variables. By contrast, correlation, which depends on the covariance, is a scaled measure of linear dependence. Values of the correlation coefficient $r(x_1, x_2)$ may range from -1 to +1. The more the value tends to 1, the stronger the dependence between the variables. The correlation coefficient, however, does not indicate which variable is the agent.

Thus, there are basically four interpretation options of correlation: If a clear direction of impact from the one to the other variable exists, it is referred to as a causal correlation. This may be the case if a) $x_1$ brings about change in $x_2$ ($x_1 \rightarrow x_2$) or if b) $x_2$ brings about change in $x_1$ ($x_2 \rightarrow x_1$). If c) the relation between $x_1$ and $x_2$ is influenced by a hypothetical variable $\xi$, the dependence between $x_1$ and $x_2$ can only be partially interpreted as a causal correlation since variations in $x_2$ are not only directly caused by variations in $x_1$ but also by the power of $\xi$ in both a direct and indirect (via $x_1$) way. The same is true for the direction $x_2 \rightarrow x_1$. If d) the dependence between $x_1$ and $x_2$ is

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3 A variable is a concept that is capable of measurement and thus can take on different values. The degree of precision varies from scale to scale (see amongst others KUMAR (2005), p. 55; McDAVID/HAWTHORN (2006), p. 452).
4 See also in the following BLALOCK (1985), pp. 24 et seq.; BACKHAUS/ERICHSON/PLINKE et al. (2003), pp. 340 et seqq.; KENNY (1979), pp. 1 et seqq.
5 For a formal definition of covariance and correlation see also in the following BACKHAUS/ERICHSON/PLINKE et al. (2003), p. 340 et seqq.