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Beyond the modelling process: an example to study the logistic model of customer lifetime value in business marketing.

Stillman, Gloria Ann (ed.) et al., Teaching mathematical modelling. Connecting to research and practice. Dordrecht: Springer (ISBN 978-94-007-6539-9/hbk; 978-94-007-6540-5/ebook). International Perspectives on the Teaching and Learning of Mathematical Modelling, 607-617 (2013).

Summary: Mathematical modelling is a popular tool used to solve many quantitative business problems. It is a challenge to teach mathematical modelling skills to students, in non-mathematics majors, from business schools for example, who will potentially be employed to tackle business problems raised in market competition. In discussing the method to estimate customer lifetime value (CLV), as an example, we focus on the dynamical relationship among variables rather than simply setting up a formula from which the subject can be readily solved. Such a dynamical system approach exhibits the logistic nature of the CLV model. The pedagogical implication of learning this logistic property is that the learnt technique is applicable in various market scenarios. In showing this model, it is asserted that mathematical modelling is not merely a variation of problem solving.

Classification: M40

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