5th International Conference on Mass Customization and Personalization in Central Europe (MCP-CE 2012)

Customer Co-Creation in Central Europe
September 19-21, 2012, Novi Sad, Serbia

PAVING THE WAY TO CUSTOMER CO-CREATION IN INNOVATIONS

Marcel Weber
Altuition BV, 's-Hertogenbosch, Netherlands / Eindhoven University of Technology, Netherlands

Abstract: *Lately, much academic research has been devoted to the phenomenon of an active user involvement in innovations, otherwise known as customer co-creation in innovations. However, most of this research has been of a descriptive or explanatory nature, failing to give NPD-practitioners practical and comprehensive guidance in how to organize and execute this customer co-creation. To overcome this problem systematic research and research synthesis of extant research, using the design science research methodology, was conducted to design and develop a scientifically based and grounded practical guide for management, coined the 3CI-Protocol, on 'how to' involve customers in the process of co-creation in innovations. The research has been conducted to fulfill the increasing need from organizations to involve their customers in NPD or NSD, but who are insufficiently familiar with all the appropriate aspects of this involvement. In particular, the 3CI-Protocol addresses questions such as when to involve customers in co-creation, which customers to involve, the requirements to effectively involve them, and the procedures, methods and techniques to do this. The 3CI-Protocol is currently being beta tested by several organizations. The paper highlights the main protocol ingredients..*

Key Words: ***Customer co-creation, open innovation, new product/service development***

1. INTRODUCTION

Today's customers are looking for greater engagement with the products and services they use. Companies that are excelling in this environment are creating value for stakeholders beyond the product itself. Recent developments in social technologies and collaboration tools, as well as the increased interactivity and (mass) customization of goods, allow people to be more informed, connected and active in the definition and delivery of their product experiences [1].

Customers no longer accept the longstanding view that companies create value all by themselves, and that customers are merely passive recipients of that value. Tremendous value for enterprises now lies in engaging people in new or redefined interactions to ideate, prototype, create, market and use products. This engagement, which goes beyond the use of the product itself, creates immense value for the company and its customers.

Unleashing value creation from new interactions across this spectrum is the essence of what we call "customer co-creation." We believe this new way of looking at value creation is important and fundamental for firms' continuity. For many CEOs and product development professionals, understanding and tapping into the power of customer co-creation is becoming one of the top priorities on their agenda. Question for them is how to engage the customers and how to successfully co-create with them in new product or service development.

This article is focused on the subject of customer co-creation in innovations for product and service industries. Customer co-creation in innovations refers to the active involvement of customers and users in the firm's innovation process. The article describes: (1) how firms successfully can engage and activate customers or users, (2) the steps they should take, (3) the kind of customers or users to involve, (4) the tools and techniques to apply, and (5) the procedures to be followed, in the Customer Co-Creation in Innovations (3CI) Protocol. This protocol was developed because literature is in itself insufficient and ambiguous in providing the necessary ingredients and procedures for an effective and efficient co-creation with customers in innovations.

2. OMISSIONS IN LITERATURE ON CUSTOMER CO-CREATION IN INNOVATIONS: POTHOLES IN THE ROAD

The role of customers in innovations has amply been addressed in literature, e.g. Holt [2] and Kaulio [3]. The innovation process turned in the late eighties into a multi-actor process which requires high levels of integration at both intra- and inter-firm levels and which is increasingly facilitated by IT-based networking [4]. Yet, in this evolution customers and users are allotted a passive role: their only role is to have needs, which manufacturers identify and fill by designing and producing new products. Von Hippel [5] was one of the first to observe how active users can be in innovations. This caught the academic attention to conduct more research on the active involvement of users and customers in product development, e.g. Biemans [6], Gruner and Homburg [6, 7], and others. Because of the advances in computer and communication capabilities contribution of customers is growing steadily larger [8,

9]. In that respect, it is not surprising that academic interest on the subject of customer co-creation or involvement in innovations is growing, reaching a peak in the last ten years.

Aside from some controversies regarding the benefits of customer involvement [10], the indistinctness whether we should involve existing or potential customers[1] [11], the fitness of ordinary users to contribute in radical innovations [12-14], literature is also ambiguous regarding the way to properly shape customer co-creation. A range of successful techniques and ways for obtaining active customer input into the product development processes have been proposed, such as lead user analysis [15], mass customization [16], beta testing [17], empathic design [18], consumer idealized design [19], co-design [20], user communities [21], and the use of online toolkits [22]. Books on best practices and examples have also been published, e.g. Tapscott and Williams [23], Li and Bernoff [24], and Ramaswamy and Gouillart [25].

In spite of all these efforts, managers and potential practitioners usually are left behind in confusion because of a lack in a comprehensive "how-to" guide, e.g. Jurgens-Kowal [26].

3. RESEARCH OBJECTIVES AND METHODOLOGY: PLANNING THE ROAD RECONSTRUCTION

3.1. Design and development of a protocol

Because of these omissions we undertook the challenge to design and develop a comprehensive guide for managers and potential practitioners in customer co-creation in innovations or new product development. The guide has to address how firms should successfully activate customers or users in NPD and what process they should follow, i.e. the kind of customers or users to involve, the tools and techniques to apply, and procedures to be followed. It should provide the appropriate conditions and interventions for an effective co-creation. Effective in this sense means that the customer input will be of added value to the innovation, resulting in the outcome that the organization succeeds in bringing the innovation into the market or in use. This doesn't necessarily mean that the innovation will be a commercial success, because this success depends on more and other factors than just customer co-creation. But, in this context customer co-creation gives the organization the necessary confirmation that the innovation fits needs and demands in the market, and thus leads to a higher adaptation than one should expect when not co-creating with customers.

Because of these requirements we chose to use the form of a protocol, in an analogy with medical protocols that have the aim of guiding decisions and contain criteria regarding diagnosis, management, and treatment in specific areas of healthcare. We named it the Customer Co-Creation in Innovations (3CI) – Protocol that organizations that want to co-create can consult and follow.

3.2. Design science research methodology

The design and development of the 3CI-Protocol was practice-based: analysis and synthesis of best practices, experiments, and such, described in academic and management literature, interviews with successful practitioners and our own experience in this field, resulting in design propositions. These propositions were supported with a preceding and supplementary academic literature review to find theoretical concepts and explanations, so called mechanisms, for the propositions. Because of this we followed the design science research methodology [27]. It was conducted through a systematic review [28] of existing and extant literature and practice on customer and user involvement, followed by a research synthesis, using the 'realist synthesis' approach [29], to develop design propositions [30], before developing the protocol.

4. THE DESIGN OF THE 3CI PROTOCOL: CREATING A NEW ROAD

4.1. 3CI construct and framework

Based on the systematic review we were able to define a construct for "customer co-creation in innovations (3CI)". 3CI is the process where product manufacturers and/or service providers actively engage with their end users or customers in (parts or phases of) innovation projects to jointly perform innovation activities and co-create value, with the aim of increasing effectiveness and efficiency of the innovation process. Effectiveness refers to (1) the result of meeting users' and customers' needs and demands in a better way; and (2) increasing customer loyalty. Efficiency refers to (1) the reduction of research and development costs; and (2) the reduction of development time. We observed many modes for co-creation, usually differing on dichotomous aspects, such as conditions, types of participation, roles and procedures for both customers as firms, resulting in many combinations for 3CI. To be able to handle and analyze all these combinations properly we developed a 3CI framework (Figure 1) that covered all these different aspects in the following main themes of 3CI: (1) conditions to determine whether a firm can co-create with its customers in innovations, which we designated the context conditions; (2) the conditions to identify, select, and motivate potential customers to participate in customer co-creation in innovations; and (3) the possibilities to engage and involve these customers in the innovation process in an effective and efficient way, i.e. the process, procedures and methods one can follow, and the tools one can use to accomplish this.

[1] For reading convenience we will use the generic term "customer" to depict all possibilities, unless stated otherwise.

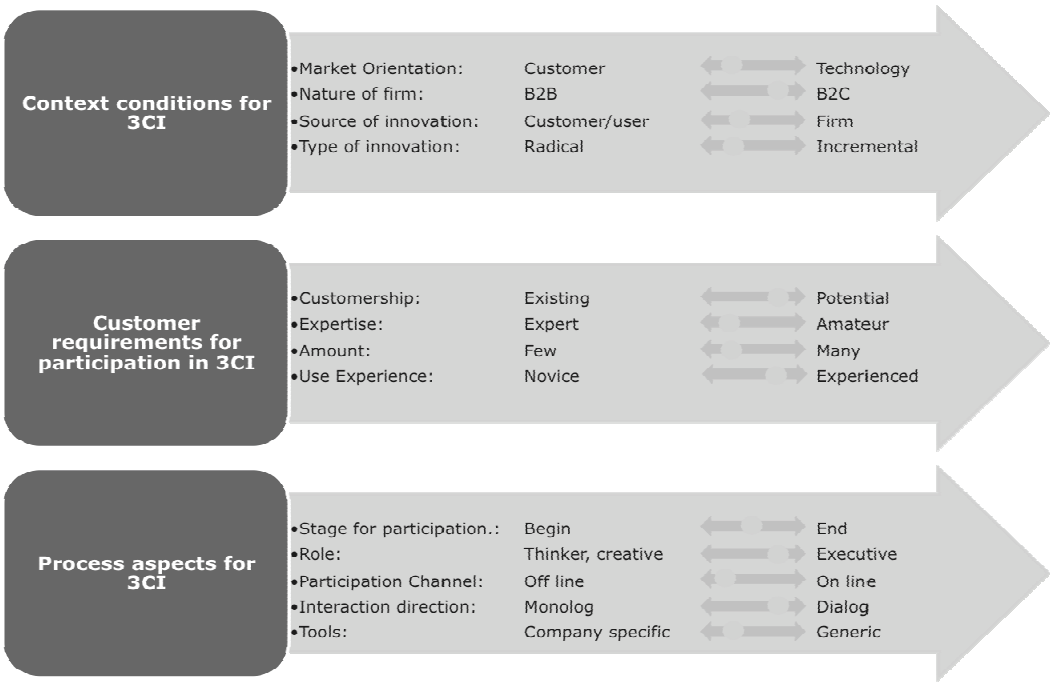

Fig. 1. *The 3CI framework*

4.2. Analysis of practice

With this framework the practice of customer co-creation was analyzed by means of several practice cases, including the first author's own experience [31]. The cases, selected for their diversity, reveal the opportunities and challenges of customer inclusive innovation. We will provide the highlights of this analysis in this sub section.

Customer involvement was at least a partial success in all cases. At the same time, it was never a 'silver bullet' to permanently transform the way the company worked. 3CI seems to be capable to support both incidental and repeating innovation initiatives of a firm. Another observation is that, whether a B2B or B2C type of firm, a manufacturer or service provider, a small or a large firm, any organization seemed to benefit from 3CI. Common in all successful cases is that the organization's offerings and markets were heterogeneous, thereby containing opportunities to develop either line extensions or really novel (radical) offerings. The technology base of the organization did not seem to be a necessary condition for 3CI. Yet, the more customer oriented the company, the better it was suited and capable to apply 3CI.

Another theme cutting across the successful cases is the existence of an 'innovation community', where users test, experiment with, and modify or enhance existing prototypes and products, paving the roadway to innovation. As for the relationship between innovation type and type of customer, the cases undoubtedly demonstrate that 'ordinary' users can provide useful input to develop both radical and novel innovations.

The cases also demonstrate that nearly all innovation activities can be conducted by co-creating with customers, including needs assessment, ideation, screening of ideas or concepts, concept testing, product design and development, commercialization of the innovation and even re-innovation [32] while in use. So, although one could get the idea of 3CI being of particular interest in the front end, we see that in all later stages 3CI can be practical and beneficial. Typical across all cases is also the dependence of the amount of involved customers involved, which we called the degree of innovation openness, on the channel of involvement (online versus face-to-face). The more open and the less secretive the co-creation, the more participants were involved, usually leading to an online co-creation process, either within communities [8] or by crowdsourcing [33] it to the crowd with an open call. Conversely, the more secrecy needed, the less participants and the more offline participation seems to be suitable for 3CI.

Finally, regarding the use of tools it can be concluded that sophisticated methods for customer co-creation are a complement rather than the sole source of user information. More important seems to be the occurrence of a dialogue between firm and participating customers, implying that the quality of the interaction depends on mutual trust, appreciation, commitment and equality. Techniques that support this dialogue, such as the ZMET [34], outcome-driven methods [35], analogies [36], seem to be important to assure effective and efficient contribution from customers.

4.3. Synthesis: design propositions

Subsequently, the design process was conducted, first by defining 16 design requirements for the 3CI-protocol – subdivided in functional and use requirements, and design restrictions and boundary conditions – followed by the development of the design propositions. Design propositions followed the "CIMO-logic" [30]. A grand total of 28 design propositions have been identified, regarding the context of 3CI (10 propositions), the customer requirements (10 propositions) and process (8 propositions).

The "context" propositions reflected the context decisions to be made, i.e. the appropriate strategy, the suitability of the firm's market, the initiator for the co-creation (firm or customer), and the type of innovation (incremental vs. radical, open vs. closed mode). These are the first decisions the firm has to make when

undertaking the 3CI journey. Only when these decisions are made, a next step, i.e. determining which customers to involve and how many, can be taken. It has been argued that any organization can co-create with its customers, provided that they adopt and maintain a market-oriented strategy. Providing necessary tools, space, freedom and transparency to customers further enhances co-creation. Firms can strive for at least incremental innovations through co-creation, but when it also applies Customer Knowledge Methods [37] it increases the chance for radical innovations. If secrecy is required, a closed mode approach of co-creation can be followed, meaning that a minimal amount and diversity of external participants are needed. A condition, however, is that there is a clear scope of the innovation objectives and the market it is intended for. Finally, organizations can either build on customer-initiated ideas or initiate an innovation itself. In the first approach it is recommended to create and maintain a customer community, which can be monitored, observed and interacted with to elicit the customers' ideas.

The 10 "customer" design propositions deal with the type of customers to co-create with, and with the recommended interventions to motivate participation. We propose that all (potential) customers are eligible to participate, as long as they have a certain use experience with the product, service or category of innovation. Only it is imminent to innovate radically, it is recommended to involve an additional number of lead users [12], so the chance of obtaining really novel ideas is increased. To find these lead users, the company can make a call to the customer community to identify these lead users, since they can be expected to know the community's lead users. Selection of all participants should be based their willingness to participate. Participants should be trained or educated in applying the tools, techniques and methods that are used during their involvement.

To prevent a decrease of intrinsic motivation with participants, companies have to be very prudent in promising financial rewards. Rewards can be given, but preferably unexpected and dependent on task complexity and performance demonstrated by the participant [38]. Depending on the channel of involvement, we recommend a minimum of 15 participants, while the maximum is undetermined, provided that the company reserves sufficient resources to handle the amount of participants.

To our previous 20 design propositions we have defined an additional 8 design propositions regarding the "process" of co-creation. We have seen that 3CI is beneficial in all innovation stages. However, each stage requires its own appropriate tools and techniques and contributions from customers. In that respect, a decision table has been developed depicting appropriate activities, expected contributions, tools and techniques per innovation stage[2]. Co-creation can take place in either one, more or all stages; to receive the most benefit, customers should be involved as early as possible in the innovation process. To prevent loss of attention, de-motivation and premature abandonment, we have proposed to change participants with ongoing activities; relying on the same customers in all stages can result in 'myopic' results. Both online and offline co-creation are possible, depending on openness, the preferred amount of participants and available resources. If participation is online, we recommend the application of crowdsourcing methods and techniques, preferably within the customer community. To support an effective dialog between the organization and the participating customers, we propose to use metaphor or analogy based 'language' and to treat the participants as if they were team members.

[2] Because of detail the table is not presented. Readers can consult this table in Weber 2011, p. XXX.

4.4. End result: the 3CI-Protocol

Not all the 28 design propositions are applicable in every situation. Depending on choices regarding the type of innovation (radical vs. incremental), the openness (open vs. closed mode), the type of customers' contribution (raw ideas vs. market ready ideas) and the stage of the innovation, a combination of several five to ten of these propositions are relevant. Doing this, four main routes can be identified, which we metaphorically named the dreamcatcher, contest, touchstone and employment route, each dependent on the choices made. A company then has one or combinations of more routes at its disposal when aiming to co-create with customers in the innovation process (Figure 2).

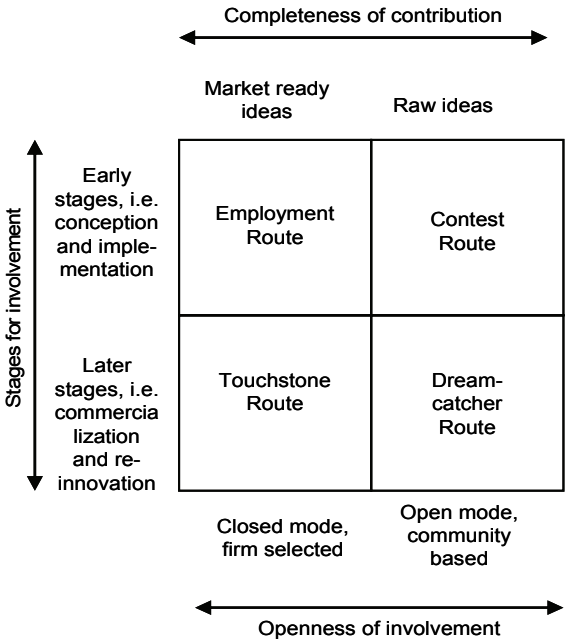

Fig. 2. *Choosing the appropriate route for 3CI*

The dreamcatcher route makes use of a user community – preferably online – where existing products, services or platforms are used, reviewed and discussed by customers. The company observes and participates in this discussion through dialogue and, possibly, moderation, e.g. Dell's Ideastorm. Suggestions, complaints, ideas and opportunities are identified by the company or customers, and translated into innovation projects. The company can involve customers in such a project via one of the other three routes.

In the contest route the company can challenge users with a specific question or request, for which users have to find a solution. Not all ideas from users will be

useful, so the company can select the best one(s) and reward the submitters, hence the name "contest", e.g. Gold Corp. The contest route is not only suited for the front end of the innovation (conception stage), but can also be followed in later stages, where customers can test prototypes, assist in the commercialization and the re-innovation in a competitive setting.

In the touchstone route the company can decide to co-create with customers in any, arbitrary stage or activity of the innovation process, provided that it has an idea, plan, concept, or prototype that has to be tested and strengthened by users. Customer co-creation is opportune to verify assumptions, fill in details, and provide additional, not thought of product, process or service requirements and features. It differs from ordinary product testing in the respect that future customers get an opportunity to make suggestions and changes in the presented concept or idea. It is possible to co-create with the customer or user in more than one innovation activity, but the touchstone route is particularly relevant for co-creation in the implementation stage and further.

Finally, in the employment route the company can integrate one or more (limited amount of) customers in the innovation project team, e.g. by temporarily employing them. An example of a company that integrates users in NPD-teams is LEGO. This approach is of particular interest in idea generation, design and development activities, i.e. the conception and implementation stage, but later stages aren't excluded. We can see this approach applied in customized projects, where it is the intention to create a new product or service for a specific set of customers or segment. This can be on request by the customer or because the company has discovered an unfulfilled or unattended set of needs from these customers, e.g. through dreamcatching.

The 3CI-Protocol elaborates on each route, providing preparation steps and dos and don'ts for an effective and efficient contribution from customers. The protocol notes that the four routes are interrelated and do not exclude each other, but it also provides companies with the optimal approach for 3CI through a quick scan and a workshop to identify context and relevant decision points. The 3CI-protocol is therefore a robust, handy guideline for companies to co-create with their customers in innovations. Because of the systematic and rigorous analysis and synthesis of theory and practice, the protocol can be applied in almost any situation.

4.5. Validation of the 3CI-Protocol

To test and prove the correctness of this last assertion we validated the design by having it reviewed by some potential users, some experts and some scholars, and to base the conclusion of its validity on the opinions of these reviewers. A total of 25 potential reviewers, both national and international, consisting of product/service developers, co-creation intermediaries, consultants and scholars were approached independently from, and 'blind' to each other to conduct this review. Ten of them consented in participation; three abandoned the review process prematurely for personal reasons, leaving a total of 7 reviewers that have submitted comments. It was agreed on to enhance the review with a Delphi [39] if responses were very divergent.

All reviewers found the protocol useful and helpful for guiding the process of customer co-creation. Comments or critique were limited to the readability of the protocol, with the remark that users might lose attention because of the academic reasoning. Some of them provided useful additions to the protocol in order to enhance the readability. Also, suggestions were made to promote the protocol to practice, for instance by publishing it via a community and a management book and present it in conferences. The comments did not contain divergent viewpoints on the subject, the design and its content, so the Delphi was left out. Based on these comments and suggestions by the reviewers, we have redesigned the protocol into the 3CI-Protocol version 1.0, which can be obtained as a separate document [31].

Despite the positive reviews, the 3CI-Protocol still needs to prove its potential through validation in practice. In that respect we are pleased to see that that several organizations, e.g. a telecom provider, a car importer, and an IT systems developer, have taken interest in the 3CI-Protocol and are currently applying it or planning on its application through one or more routes in the near future.

5. CONCLUSION

Our main contribution to research in management and organization has been to develop a comprehensive how-to guideline for practitioners, based on and grounded in a diversity of theory. Therefore, we believe that we have contributed with a design that is applicable in any kind of business and organizational contexts where the interaction with end users is aimed at developing new offerings. However, modesty is also in place, when we observe that this has to be proven, yet. Further research can be aimed at obtaining this proof, while other research could focus on the underlying assumptions, which we named generative mechanisms, of the design. We therefore propose to use this protocol to further validate it in practice and giving us feedback on its effectiveness.

6. REFERENCES

1. Prahalad, C.K. and V. Ramaswamy, *The new frontier of experience innovation.* MIT Sloan Management Review, 2003. **44**: pp. 12-18.
2. Holt, K., *The role of the user in product innovation.* Technovation, 1988. **7**(3): pp. 249-258.
3. Kaulio, M.A., *Customer, consumer and user involvement in product development: A framework and a review of selected methods.* Total Quality Management, 1998. **9**(1): pp. 141-149.
4. Rothwell, R., *Towards the Fifth-generation Innovation Process.* International Marketing Review, 1994. **11**(1): pp. 7-31
5. von Hippel, E., *The Sources of Innovation*1988, New York: Oxford University Press.
6. Biemans, W.G., *User and third-party involvement in developing medical equipment innovations.* Technovation, 1991. **11**(3): pp. 163-182.

7. Gruner, K.E. and C. Homburg, *Does Customer Interaction Enhance New Product Success?* Journal of Business Research, 2000. **49**(1): pp. 1-14.
8. Sawhney, M., G. Verona, and E. Prandelli, *Collaborating to create: The Internet as a platform for customer engagement in product innovation.* Journal of Interactive Marketing, 2005. **19**(4): pp. 4-17.
9. Prahalad, C.K. and V. Ramaswamy, *The Future of Competition: Co-Creating Unique Value with Customers* 2003, Boston, Mass.: Harvard Business School Press.
10. Christensen, C.M. and J.L. Bower, *Customer power, strategic investment, and the failure of leading firms.* Strategic Management Journal, 1996. **17**(3): pp. 197-218.
11. Bonner, J.M. and O.C. Walker Jr., *Selecting Influential Business-to-Business Customers in New Product Development: Relational Embeddedness and Knowledge Heterogeneity Considerations.* Journal of Product Innovation Management, 2004. **21**(3): pp. 155-169.
12. von Hippel, E., S. Thomke, and M. Sonnack, *Creating breakthroughs at 3M.* Harvard Business Review, 1999. **77**(5): pp. 47-56.
13. Magnusson, P.R., *Exploring the Contributions of Involving Ordinary Users in Ideation of Technology-Based Services.* Journal of Product Innovation Management, 2009. **26**(5): pp. 578-593.
14. Lettl, C., C. Herstatt, and H.G. Gemuenden, *Users' contributions to radical innovation: evidence from four cases in the field of medical equipment technology.* R&D Management, 2006. **36**(3): pp. 251-272.
15. Herstatt, C. and E. von Hippel, *From experience: Developing new product concepts via the lead user method: A case study in a "low-tech" field.* Journal of Product Innovation Management, 1992. **9**(3): pp. 213-221.
16. Berger, C., et al., *Co-designing modes of cooperation at the customer interface: learning from exploratory research.* European Management Review, 2005. **2**(1): pp. 70-87.
17. Dolan, R.J. and J.M. Matthews, *Maximizing the utility of customer product testing: Beta test design and management.* Journal of Product Innovation Management, 1993. **10**(4): pp. 318-330.
18. Leonard, D. and J.F. Rayport, *Spark Innovation Through Empathic Design.* Harvard Business Review, 1997. **75**(6): pp. 104-113.
19. Ciccantelli, S. and J. Magidson, *From experience: Consumer idealized design: Involving consumers in the product development process.* Journal of Product Innovation Management, 1993. **10**(4): pp. 341-347.
20. Sanders, E.B.N. and P.J. Stappers, *Co-creation and the new landscapes of design.* CoDesign, 2008. **4**(1): pp. 5-18.
21. Piller, F.T., et al., *Overcoming mass confusion: Collaborative customer co-design in online communities.* Journal of Computer-Mediated Communication, 2005. **10**(4): pp. 1-8.
22. Piller, F.T. and D. Walcher, *Toolkits for idea competitions: a novel method to integrate users in new product development.* R&D Management, 2006. **36**(3): pp. 307-318.
23. Tapscott, D. and A.D. Williams, *Wikinomics: How Mass Collaboration Change Everything*2007, New York: Wiley & Sons.
24. Li, C. and J. Bernoff, *Groundswell: Winning in a World Transformed by Social Technologies*2008, Boston MA: Harvard Business Press.
25. Ramaswamy, V. and F.J. Gouillart, *The Power of Co-Creation. Build It With Them To Boost Growth, Productivity, and Profits*2010, New York: Free Press.
26. Jurgens-Kowal, T., *The Power of Co-Creation Venkat Ramaswamy and Francis Gouillart. New York: PB - Free Press , 2010. 276 + ix pages. US$28.* Journal of Product Innovation Management, 2012. **29**(4): pp. 683-683.
27. van Aken, J.E., *Design Science and Organization Development Interventions. Aligning Business and Humanistic Values.* Journal of Applied Behavioral Science, 2007. **43**(1): pp. 67-88.
28. Cooper, H. and L.V. Hedges, *The Handbook of Research Synthesis*1994, New York: Russel Sage Foundation.
29. Pawson, R., *Evidence-based Policy: The Promise of `Realist Synthesis'.* Evaluation, 2002. **8**(3): pp. 340-358.
30. Denyer, D., D. Tranfield, and J.E. van Aken, *Developing design propositions through research synthesis.* Organization Studies, 2008. **29**: pp. 393-413.
31. Weber, M.E.A., *Customer Co-Creation in Innovations. A protocol for innovating with end-users*, in *Industrial Engineering & Innovation Sciences*2011, Eindhoven University of Technology: Eindhoven.
32. Rothwell, R. and P. Gardiner, *Invention, innovation, re-innovation and the role of the user: A case study of British hovercraft development.* Technovation, 1985. **3**(3): pp. 167-186.
33. Howe, J., *Crowdsourcing: Why the power of the crowd is driving the future of business*2008, New York: Crown Business.
34. Zaltman, G., *How Customers Think. Essential Insights into the Mind of the Market*2003, Boston, Mass.: Harvard Business School Press.
35. Ulwick, A.W., *What Customers Want. Using Outcome-Driven Innovation to Create Breakthrough Products and Services*2005, New York: McGraw-Hill.
36. Herstatt, C. and K. Kalogerakis, *How to use analogies for breakthrough innovations.* International Journal of Innovation and Technology Management, 2005. **2**(3): pp. 331-347.
37. Davenport, T.H., J.G. Harris, and A.K. Kohli, *How Do They Know Their Customers So Well?* MIT Sloan Management Review, 2001. **42**(2): pp. 63-73.
38. Amabile, T., *Creativity in context*1996, Colorado: Westview Press.
39. Linstone, H.A. and M. Turoff, *The Delphi Method: Techniques and Applications*2002, Newark, NJ: New Jersey Institute of Technology.

CORRESPONDENCE

Dr Marcel Weber, Sr. Consultant
Altuition BV
Rompertsebaan 60
5231 GT ‘s-Hertogenbosch,
the Netherlands
marcelweber4@gmail.com