



Systematic Innovation Management as a Marketing Strategy for Libraries

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Abstract:

Service innovation has become a necessary choice and management technique in service industries. Services now are making up about 70% of the GDP in countries of the Organization for Economic Cooperation and Development (OECD). Libraries are part of the service “industry” and have to implement new technologies and services to improve satisfaction to their users and customers. Therefore libraries have to build up and implement an innovative culture.

The main focus of service innovation is the understanding of customer needs and wants (expressed or non-expressed). To be effective in service innovation it’s necessary to integrate the customer in the innovation process in different phases. Therefore libraries have to develop and to implement a systematic innovation strategy. The web is a perfect way to get customers to provide feedback and suggestions for improvements and new services on the one hand and to communicate innovations successfully to stakeholder on the other hand.

- *The successful concept of open innovation in many industries (Apple, Bosch, Fujitsu, Lego, Siemens, Swarovski etc.) shows that a lot of customers are bursting with comments, criticisms and ideas, and interests for an opportunity to share them.*
- *It is of decisive importance for libraries’ image and profile to reconsider their attitude towards an active communication of innovations.*

The most important target groups of open innovation and innovation communication are customers and employees. But for innovation communication stakeholder like politicians, public authorities, representatives of different organizations, cooperation partners and journalists are target groups too.

Introduction

In many industries systematic innovation management is one of the key business strategies. Manufacturing companies are leader in this area, because at the end of the innovation process patents will be applied, ideally representing new products or optimizing existing ones. In the area of service management systematic innovation is less developed. But one gains the impression that organizations of information science don't take strategic action, and that innovations are the result by chance, or a policy on competition takes place without the fit or the need for the domestic market. For this reason, the topic of innovation management was part of expert interviews in libraries and public institutions of information services to discuss the importance, objectives, responsibilities and communication in the innovation process to get an overview about the innovative strength.

Questions

The survey aimed to answer the following key questions in a qualitative way.

1. *Are research and implementation of innovative products and services pursued by a systematic strategy?*

Innovation process is defined as follows: Innovation processes are characterized by systematic, targeted processes, so that new ideas are the basis for innovative, forward-looking services, and these are placed in the market successfully.

2. *Are innovations systematically accompanied by communication to the outside? How and when customers become informed about innovations?*

Innovation communication was defined to the interviewees after Zerfaß, Ernst [2008] as follows: Innovation communication is an essential part of corporate communication and the systematically planned, implemented and evaluated communication of innovations with the aim to develop understanding and trust to the innovation and to position the organization as an innovator.

3. *Is the term open innovation known and is there a willingness to try and intensify (new) forms of customer integration into the innovation process in the future?*

Open innovation was defined to the interviewees after Chesbrough [2003] as follows: "Open Innovation is a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology. Open Innovation combines internal and external ideas into architectures and systems whose requirements are defined by a business model."

Way of Proceeding

Surveyed were more than 30 institutions: libraries and information centers of various sizes. The spectrum extended from state libraries, academic libraries of various sizes, public libraries and special libraries to and documentation departments in

public ownership. The survey was addressed to the head of the institutions and in almost all cases; it was directly answered from these persons. Nearly all institutions were interviewed by telephone. It was created an extensive questionnaire with three parts:

- Systematic innovation management,
- Innovation communication,
- Open Innovation.
-

Type of Questions

The questions could be structured in the following way:

- Questions about experiences,
- Questions about the current knowledge, for example about “open innovation”,
- Questions about opinions, and
- Questions about the background of the interviewees and institutions.

In addition stimuli to narrate are integrated to get background information about strategies and action. Due to the detailedness of the questionnaire, the interviewees were given the opportunity to reflect previous strategies and to take accepting ideas from the questionnaires for future action.

Evaluation

Because the expert interviews based on a highly structured questionnaire, it was possible to evaluate the data partly in a half-quantitative way. As in the qualitative analysis absolute numbers in many cases are of no importance, results were sometimes shown in the form of Word Clouds [2010] by Wordle. A number of raw data were collected narrative, which were not simply classifiable.

A focusing on the area of open innovation is done in the context of this contribution.

Theoretical background

The product and service sector has to be aimed at the customer needs so that the single customer is satisfied while the entrepreneurial goals are accomplished simultaneously, however. In the context of the service innovation this means that new services must custom-fitly be tailored to the customer. (Apparently) good ideas of one's own, however, are too often realized without analyzing, whether the customer needs these services or whether the market is ripe to this.

Customer desires ideally are taken into account in a way as extensive as possible at the service innovation in which the challenge lies in it to convert the customers` desires into corresponding actual customer requirements. The solutions putting customer desires into action may seem trivial; however, it is only rare because the customer can formulate wishes and problems but normally not solutions. Moreover, it

remains unsolved often, if the customer would actually use the new services. A typical example is the question about opening hours of supermarkets or also libraries. Everybody wants 24/7 as opening hours, but who visits the library from 2 to 4 a.m.?

Libraries and information institutions are forced to develop new solutions and services for the customer permanently because of increasing competition and a high dynamism of information science services.

Closed Innovation

In the case of really innovative needs, ideas and concepts, as a rule, the methods of the traditional market research or customer surveys are not effective or insufficiently. The customer involvement confines itself only to the general articulation of needs often. On the other hand, the transfer of concrete ideas of innovation and mature product concepts is included not or only insufficiently. The “closed“ innovation processes are normally restricted on the creative input and the knowledge of a small group of experts within the institution. In the field of information science institutions, it is often the lead. Communication with the customer for the early stages of the innovation process, i.e. primarily for the idea generation, therefore takes place barely.

Information needed in the innovation process

In the process of innovation every supplier of services and/or products needs two forms of information:

- Need information: Information about market and customer needs.
- Solution information: Information how customer needs can be implemented efficiently and accurately.

The need information is found out by customer or non-customer interviews often. The solution information can, however, be only extremely seldom questioned about this. The customer is often passively or actively involved in the service process and has influence on the quality of the service so. The customer therefore receives insight into the potential and process level. It is therefore obvious to integrate the customer into the process of innovation of service actively. Customer innovation exists already for a long time, however, normally it runs without the knowledge of the producer: Plants, measuring instruments etc. are frequently adapted by the customer on his own exact needs, but the enterprise doesn't know and hear anything about these activities. Customer innovation is then frequently the result of unfulfilled needs by the manufacturer / supplier.

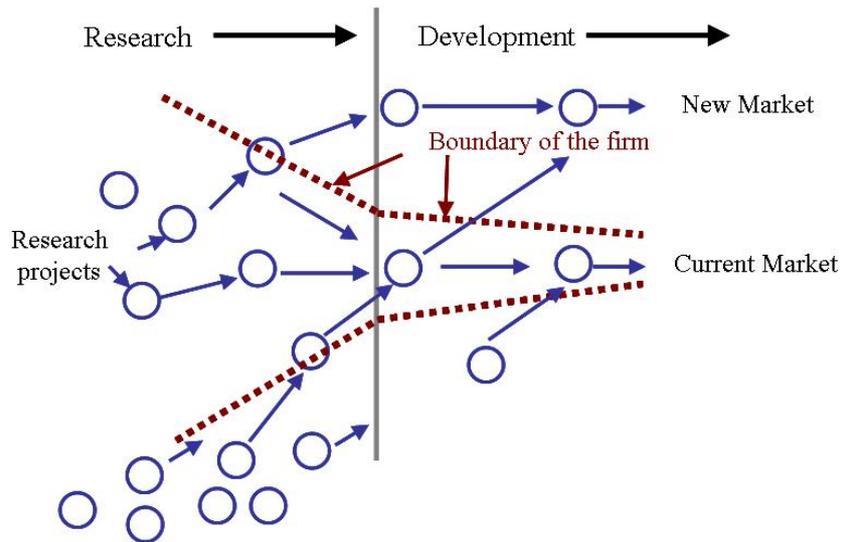


Figure 1: Closed und Open Innovation [Chesbrough, H. 2003]

One estimates that depending on line of business 10-40 % of all customers are ready to participate actively in innovation processes. In the result, however, this means that numerous lines of business not nearly exploit this potential.

Very different roles are conceivable, a customer can be involved in the process of innovation. His independence from the interview up to the independent innovation rises continuously.

Closed Innovation (Schumpeter)	Open Innovation (Chesbrough)
The smart people in the field work for us.	Not all the smart people work for us. We need to work with smart people inside and outside.
To profit from R&D, we must discover it, develop it, and ship it ourselves.	External R&D can create significant value; internal R&D is needed to claim some portion of it.
The company that gets an innovation to the market first will win.	Building a better business model is better than getting to market first.
If we create the most and the best ideas in the industry, we will win.	If we make the best use of internal and external ideas, we will win.
We should control our intellectual property, so that our competitors don't profit from our ideas.	We should profit from other's use of our intellectual property, and we should buy others'.

Figure 2: Closed Innovation vs. Open Innovation [Chesbrough, H. 2003]

Results about Open Innovation

From the questionnaire some particularly relevant results were excerpted to make clear that in the information science open innovation is not well-known. But the readiness, however, is great to have a good look at the topic and to try out concrete forms of the customer integration.

Is the term Open Innovation known for you?

Yes 4
No clear idea 1
Only vague idea..... 10
No..... 12

The result confirms the impression that this term is only little-known. By citing the definition for Chesbrough and giving further remarks and examples, the term open innovation was explained.



Figure 3: Word Cloud: Associations with the term Open Innovation

Although the term open innovation is not well known, almost all institutions integrate their customers to varying degrees into the innovation processes.

Do you already involve your customers into your processes of innovation?

Yes25
No.....2

At the top of the ranking here are mentioned interviews followed by complaint-/ feedback management. Customer advisory boards as well as observations or experiments are in the list right above. E.g. library commissions or meetings institutionalized including representatives of the student council were subsumed under the answer customer advisory boards.

Would you be ready, in addition to the previous forms to try previous forms of involvement?

Yes23
No.....2
I do not know2

In principle, there is a high readiness to try out further besides the previous forms of customer involvement. It was stated often, that customer integration is always dependent on innovation project, too and that one is afraid of additional load and costs which can hardly handled with the available number of staff.

From your point of view, do customers have to play a part in innovations?

Yes21
No.....0
I do not know6

Altogether, the share of the ones who are of the opinion that customers have the motivation to play a part in innovation is very high even if skepticism was quite often mentioned here, and this also by persons who have decided in favor of a Yes as the answer.

What motives have customers to play a part in innovation?

Own dissatisfaction with the current range of services 15
Intrinsic (e.g, enjoyment of activity, pride)..... 15
Obtaining personal benefits through implementation and use of innovation.....9
Social (e.g, membership in a group).....9

It is interesting that on the one side customer dissatisfaction with the current range of services and products, on the other side intrinsic motivation as an important motivation was be seen.

If you imagine the scenario of the innovation process, the customer could be involved into which stages of the innovation primarily? Give the two most important aspects from your point of view.

Prototyping
 Concept development
Market- and beta-test
Generation of ideas
 Product introduction

Figure 4: Word Cloud: customer integration in the various stages of the innovation process

In the context of this question the different phases of an innovation process were reproduced. The answer with the most frequent mentioning that the customer could be integrated in the idea generation doesn't astonish. The high number of the answers, however to the phase of the market or beta tests surprises. Development of concepts as well as prototyping has a certain meaning among the persons interviewed. This allows at last the conclusion that one ascribes a high degree of competence to the customer and takes him seriously very much.

Do chances or risks rather arise from open innovation in your opinion?

<i>Only chances</i>	10
<i>Only risks</i>	0
<i>Both</i>	14
<i>I do not know</i>	3

Even if the most frequent answer to the topic risks / chances by open innovation „both“ is, the aspect of the chances predominates considerably so anyway. The chances and risks were questioned specifically once again in the context of the next two questions. But from the frequency of responses to the various opportunities and risks the result of this question once again is strongly supported.

If chances, which potential opportunities you personally grant the greatest success probability? (Multiple answers possible)

<i>Using the experience and knowledge of customers</i>	22
<i>Increase market acceptance of new products / services</i>	18
<i>Improving the image</i>	15
<i>More personalized services</i>	12
<i>Early awareness of new (market) trends</i>	11
<i>Increased consumption of the entire range of services</i>	10

<i>Increased customer loyalty</i>	8
<i>Reduction of one's own staff needed</i>	0
<i>Reduction of development costs</i>	0
<i>Reduction of acquisition costs</i>	0

Remarkable is that the answer „using the experience and knowledge of customers “ ranks first. This will underline again that, however, the customer is not only a „passive object“ at the consumption of service and one shows a high esteem for him. All three answers which refer to a possible diminution of the effort or the costs of one's own, have no significance, emphasize that open innovation isn't an alternative to “classic” innovation activities, but useful as a supplementary or alternative form of innovation management.

If risks, which potential risks you categorize as relevant for open innovation? (Multiple answers possible)

<i>High coordination effort by your organization</i>	10
<i>Ignorance (knowledge) of the external innovators</i>	9
<i>Innovations of the external innovators based on their own benefit only</i>	7
<i>Lack of involvement of the external innovators (quantitative)</i>	5
<i>Lack of engagement of the external innovators</i>	2
<i>Lack of project and time management of the external innovators</i>	2
<i>Loss of know-how, for example to competitors</i>	0

The answers coincide with the non-mentioning at the chances, what particularly concerns the effort of one's own with that. Referring to the question about the readiness to try out open innovation in the institution of one's own, the worry was repeatedly mentioned after a high coordination effort which possibly cannot be handled with the available staff.

If you would use open innovation, which groups you would involve? (Multiple answers possible)

<i>Even selected "lead users" (demanding, critical, advanced customer)</i>	21
<i>Customers with expertise</i>	11
<i>Winner of an idea competition initiated by one´s own</i>	5
<i>Own customers without restriction</i>	2
<i>In addition, even non-customers, but with knowledge of libraries / inf. science</i>	9
<i>Members of other innovation communities, even without knowledge of the industry</i> ...5	
<i>No limit</i>	3

It is remarkable, that the so-called lead users should be most frequently integrated in the open innovation process. Lead users are sophisticated, demanding, progressive customers who have to be classified as tendentious critically or even often dissatisfiedly, however, willing to play an important part in improvements. They often see themselves as the elite customers, they are proficient in the appropriate technical language, and they communicate with other customers. Lead users are mostly very conscious of their position and want to be asked by the institution to take part in the process of innovation. The group is very small and must effortful be identified and cared for. Interviewed persons frequently asked for the identification of the lead user and wish thoroughly further concrete support. The mentioning of the idea generation is surprisingly low though this partly is very successful in other lines of business, e.g. Adidas, Apple or Swarovski.

Conclusion

Modern innovation management requires integrated structures. Social community network structures can promote innovation management in the sense of open innovation. Only by cooperation it will be able to develop suitable innovations for the customer in future. Otherwise one will run the risk developing innovations not wanted by the customers. Next to once, it is particularly necessary to do everything for a systematic innovation management which refer among others to responsibilities, know-how and concepts.

In the end, this examination shall give libraries and information providers the possibility of using the identified and described improvement potentials for their own innovation management. In the consequence changes of the organization principles possibly require also courageous decisions by e.g. conventional structures being put and broken open within a furnishing but and customer also between supplier in question

Increasing competition intensity and a high dynamics of information scientific services force service providers to develop solutions and services for the customer to build up a positive image to the customer.

The collection of qualitative data gives a profound insight into the practice of innovation management in information science institutions. It were primarily enterprises such studies focused on. Libraries and (public) information service providers weren't subject of such survey till now. It is the aim also to draw conclusions in this sector from the results for trainings and further education as well as to generate possible offers to promote the innovation management further.

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