

Distributors' knowledge sharing competency: proposing a measurement scale

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Abstract

Purpose – The present paper aims to propose a measurement scale of the distributor knowledge sharing competency (DKSC).

Design/methodology/approach – Data were generated on the basis of in-depth interviews with managers and was analyzed using the “Sphinx” software.

Findings – A pool of 50 items is proposed for the eventual measurement of the DKSC.

Research limitations/implications – The proposed measurement scale is still raw. Further research is needed in order to test its psychometric features as well as to validate its relevance into a general model of distributor knowledge management and innovativeness.

Practical implications – Organizations need to measure the degree to which they are endowed with the capability of managing effectively their distributors' knowledge in order to enhance its innovativeness capacity. The DKSC scale is considered as a barometer allowing organizations to evaluate to what extent they are endowed with capabilities to exploit and profit from its distributor's competency to share knowledge in improving and enhancing its innovativeness. The proposed DKSC scale is believed to provide managers with the opportunity to regularly monitor their distributor's relationship and its innovative capability.

Keywords Knowledge-based capabilities, Knowledge management, Innovativeness, Measurement scale.

Introduction

The rapid changes in the market, the appearance of new communications systems, the emergence of e-commerce and the appearance of virtual distribution channels make the capability to innovate and change will be even more essential for the future competitiveness of the companies than it was in the last decades.

Larger firms can afford a great amount of R&D resources to improve their innovativeness capabilities; while smaller ones, especially in less-developed countries, find it harder to gain enough and equivalent R&D resources and investment as do their larger competitors (Liu et al, 2010). Thus they must create knowledge faster than their competitors and then rapidly transform new knowledge into new ideas (Grant, 1996). That is

why it is very important for firms to concern whether, what, and how to source knowledge in order to be free from these pressures.

Today, relationships within the distribution channel must be mentioned. They are generated by redefining the channel structure, the relations between the different channel members, the processes that link the distribution network, the information and knowledge management system that communicates the whole network, as well as generating collective knowledge for developing continued improvement of innovation processes and market information.

In fact, knowledge is seen as “the most strategically-important resource which [organizations] possess,” (Grant, 1996) and a principal source of value creation and firm’s performance and innovativeness, (Nonaka, 1991; Teece, Pisano & Shuen, 1997). Firms must interact with its stakeholders to be endowed with a dynamic learning process to discover new information, to combine them in novel ways in order to generate innovation or creatively imitate (Van de Ven, 1986). This interaction involves knowledge sharing.

It is considered as processes through which knowledge is channeled between firms and their stakeholders. In this study we instigate the contribution of knowledge provided by distributors on firm’s innovativeness. In fact, distributors can be considered as a partner and as a knowledge provider to the firm. His closeness to the final customers as well as the competitors allowed him to acquire competence to collect, interpret then transfer more accurate and reliable knowledge that once assimilated, transformed and exploited by the firm can enhance its innovativeness.

I. Literature review:

It has been proposed that distribution partners may act as true market mediators who not only convey products to consumers and users, but who can also communicate information about market opportunities to product creators and thus play a key role in instigating and guiding the creation of innovation. A channel partner may be in close connection with customers at the time of purchase and perhaps even during the decision and usage periods. Product features that might encourage adoption or enhance usage may therefore be more easily observed and assessed by channel partners than by the firm itself.

By observing the product categories of the focal firm and the purchase behavior of their customers, the distributor may develop considerable insight into desirable new product features not currently offered.

Gaining access to such insights from an existing channel relationship is likely to be less difficult and time-consuming than obtaining such information by building a new channel relationship. The reduced costs and time delays are realized when market information can be obtained through distribution sharing knowledge relationships.

In addition, a channel partner may also be involved in a wider range of product categories than a manufacturer. This broader market exposure, coupled with closeness to end customers, may enable the channel to be more aware of trends in related product categories.

For example, a channel partner may be aware of customer's interests in emerging product standards, and may even know about standards that individual customers or customer groups may have already adopted. The extent of the channel partner's

knowledge of market trends can signal desirable changes in the firm's innovativeness.

So we have proposed DKSC as a new concept that is not apprehended as a stock or a set of useful and organized information as advocated by some authors (Liu et al, 2009; Frazier 2009) but it translates the organizational capability to encourage, explore, and use distributors' competency to share his market knowledge so as to arise and improve innovativeness. Two main dimensions are believed to encompass the DKSC: distributors' competency and firm's capability. Each of these two dimensions has a knowledge component attached to it.

Distributor' competency: involves individual's ability to perform a specific task in this case sharing valuable and accurate knowledge, using his know how and based on his skills, experiences and his best practice (Hartle, 1995; Weinert, 2001).

Firm's capability: pertains to the faculty or process that a firm improved to create and to change their routines, services, products, and even markets over time. It require organization's capability to acquire assimilate, absorb, manage and integrate new information with old knowledge in order to construct new knowledge that can lead to enhance its innovativeness.

II. Methodology:

To attain our objective we undertook an exploratory qualitative study using in-depth interviews. Such technique is an open-ended, discovery-oriented method used when we want to explore new issues in depth; it allows the interviewer to deeply explore the respondent's feelings and perspectives on a subject. It proceeds as a confidential and secure conversation

that stimulates and generates rich data from an interviewee (Lisa et al, 2006).

II.1. Motivations

The objective of this exploratory study is to understand to what extent and under what circumstances the organization's capability to effectively manage distribution knowledge can lead to improve and enhance innovativeness.

Distributor's knowledge sharing competency is believed to hinge around the two major and fundamental assets; in one hand we have the distributor's competency and in other hand we have the firm's capability. The in-depth interviews with responsible is conducted to let the participants talk about any meanings related to these aspects.

II.2. Procedure

The sample was composed of Tunisian organizations from different activity sectors as shown in Appendix.1. In-depth interviews were carried out with marketing managers, new product managers, R&D managers, and Development Manager using tape recordings and writing field notes. The interview's questions are drawn from the DKSC dimensions as shown in Appendix.2.

Interviewees' verbatim were reviewed and transcribed into a computer file then coded and analyzed using data analysis software in order to generate a pool of items for eventual DKSC measurement. The software used is Sphinx; it offers several ways to navigate (or surf) the text, identify themes and dimensions of analysis. Also, it provides a range of tools for the codification of text which can be treated. The use data analysis software has revolutionized the manual way of doing qualitative analysis. In fact, using data analysis software allows the researcher to take analysis of qualitative data significantly (Bazeley 2006). It provides an excellent management for large

data retrieves categorized data and provides more thorough coding and rigorous interpretation sets. So, it helps researchers to analyze their data more objectively and promote rigor in qualitative research (Leech and Onwuegbuzie, 2007).

III. Analysis:

The questions asked to managers were interpreted one by one on the basis of the software output using the *classical content analysis* that consists on identifying the most important words for the interviewee by counting the number of times each code or concept is utilized. Typically, the codes are produced deductively and included as descriptive information about the data.

III.1. Distributor's competency:

In this dimension we have specified two sub-dimensions that respond to questions what types of knowledge possessed by the distributor? and how he share his knowledge?

III.1.1. Types of distributors' knowledge.

Q1: What does distributor knowledge mean to you? Meanings/significance from firm perspective.

This question is asked in order specify and clarify the domain of the construct to the respondent. We note that some respondents ask for the difference between information and knowledge. So, we specify to them that knowledge is an appropriate collection of information, such that its intent is to be useful. It is a deterministic process; when distributors memorize information then amass knowledge so as be useful and infer further knowledge (Ackoff, 1989).

Q2: What type of knowledge can be shared with distributors?
(Knowledge about customers/knowledge about competitors)

In this question we have two attributes. Respondents distinguish between two types of knowledge provided by the distributors: knowledge about customers and knowledge about competitors. We have analyzed each attribute independently. In fact many scholars proceed to this differentiation such as Frazier (2009); Siu, (2008); Sudharshan and Sanchez, (1998); Kohli and Jaworski (1990); Narve and Slater, (1990).

Table 7.1: Knowledge about customers

Customers needs	48
Product range	45
Gaps in the product space	31
The marketing mix	18
Type of offerings	16
Customers complains	15
Customers' segments	11

Figure 7.1: Representation of the most cited words related to Distributor's knowledge about customers

As shown in above table and figure, the terms “customers needs”, “customers purchasing behavior”, “customers complains are the most cited words and this reflects the degree to which distributors are close to customers. Furthermore, the terms “product range”, “marketing mix”, “product functions”, “gaps in product range” are repeated many times which demonstrates the degree to which distributors are familiar to the firm’s offering products so as to have the competency to reveal customers intentions.

Concerning the second attribute, Table 2 and Figure 2 summarize the main terms advocated by interviewees.

Table 7.2: Knowledge about competitors

Competitive advantage	35
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Market share	32
Product range of competitors	29
Intention to introduce new product	15
Strengths	12
Weakness	12
Opportunities	7
Threats	7

Figure 7.2: representation of the most cited words related to distributor's knowledge about competitors.

Accordingly, distributors determine the firm's competitive advantage (35 citations). In fact, he can provide knowledge about competitors concerning their market share (32 citations), product range (29 citations), their intention to introduce new products (15 citation), their weakness and strengths (12) ... etc. here some example of managers' verbatim that illustrate this knowledge type.

Our distributors provide us with a lot of knowledge related to our competitive advantage and advise us on advantageous positioning of future product introductions that would impact them.

Distributor provides us with a lot of knowledge related to the market potential in the future and the competitors' intention to introduce new product.

Distributors inform us about the product range of competitors, their strengths and weaknesses and eventually opportunities and threats.

Q3: To what extent can distributors be a source of useful knowledge to the firms?

Table 7.3: Distributors as a source of useful knowledge

Contact at any time	41
Accurate knowledge	36
Partners	35

Staff member	32
Feedback	28
Information volume	12
Responsible	7

Figure 7.3: Representation of distributors as a source of knowledge

The above table shows that distributors are considered as “partners” (35 citations), “staff member” (32 citations), “a source of feedback” (28). They provide to the firm information volume and accurate knowledge. In fact, firms encourage them to contact it at any time.

Examples of managers’ verbatim seized by the Sphinx software.

We encourage our distributors to contact person in charge of the company at any time (via telephone, e-mail, fax or contact directly the manager of zone)

We consider our distributors as partners that have the possibility to contact us at any time and to provide as more reliable and update information [...]

III.1.2. Distributors’ knowledge sharing as a process:

Knowledge sharing involves extended learning processes rather than simple communication. In fact, distributors must gather, interpret and then transfer knowledge to the firm. So, to describe this process we asked respondents to answer to questions below.

Q4: According to you, how did distributor gather his knowledge?

Table 7.4: Distributors’ knowledge acquisition

Listening	45
Observe	44
Discuss	43
Negotiate	34

Initiate dialogue	32
Ask questions	29
Categorize	11

Figure 7.4: Representation of distributors' knowledge acquisition.

According to Table 7.4, distributors have the possibility to “listen” (45 citations), to observe (44 citations) to discuss (43 citations), to negotiate (34)...etc with both customers and competitors. This reflects the degree to which distributors are close and open to their external world. Here some examples of verbatim that reflect distributors' knowledge acquiring.

Distributors can do what we can't do; they have the possibility to observe customers' behavior in a real life, they ask them questions to know why?

When they negotiate and discuss with competitors, distributors compare, accumulate and acquire new knowledge.

*Our distributors listen, observe and takes note of the customers' expectations and needs.
Distributors initiate dialogue with their customers in order to understand their needs.*

Q5: Do you think that distributor has the competency to level and interpret valuable and consistent information?

Table 7.5: Distributors' knowledge interpretation

Interpret	25
Know	20
Analyse	18
Understand	18
Experience	15
Level	14
Select	14
Expertise	12
Pre-test	10
Complaint analysis	3

Figure 7.5: Representation of distributors' knowledge interpretation

According to the table 7.5, distributors do not acquire passively knowledge but they understand, analyze, interpret, select and level it before transferring it to the company. In fact

Distributors are endowed with the expertise to level and select more accurate and consistent information. In fact, his familiarity to customers' behavior and the product range allows him to see beyond of simple facts. We rely on our distributors' understanding and interpretation of causes of market change. Distributors can understand why customers accept or refuse such product. Distributors analyze and interpret it customers' complains in order to determine their cause. Distributors level and select the most important product's attributes that may influence customers' behavior.

Q 6: How did the organization get knowledge from its distributors?

Table 7.6: Distributors' knowledge transfer

Direct contact	35
Inform	29
Distributor's rapport	22
Technology infrastructure	14
In-depth interviews	12
Visits	10
Fairs	6

Figure 7.: Representation of distributors' knowledge transfer

The distributors' knowledge transfer is manifested especially by "direct contact" (35 citations), "technology infrastructure"; that means via telephone, emails, fax...etc. (29 citations), in depth interviews (12 citations) [. .].

Examples of verbatim related to customer knowledge transfer:

Employees accumulate tacit knowledge about customers' needs through face-to-face interactions with distributors.

Distributors transfer to us their knowledge through face-to-face contact, e-mails distributors report, fax, or telephone.

Participation in international fairs is considered as a good opportunity to meet our foreign distributors and to gather knowledge from them.

Fairs and visits facilitate the sharing of ideas between employees and distributors.

III.2. Distributors' knowledge consequences/outcomes:

This dimension is composed by two attributes. In on hand we specify the firm's capability to handle distributors' knowledge and in other hand we concentrate on the outcomes and consequences of this knowledge in term of extend of innovativeness.

III.2.1. Firm's capability:

Q7: How should firms handle distributor's knowledge?

Table 7.7: Main actions cited by managers

Discuss with distributors	32
Talk with distributors	26
Disseminate distributors' knowledge	22
Use distributor's knowledge	22
Structure distributor's knowledge	21
Recorded in electronic databases	18
Save the knowledge	17
Integration	11
Take seriously distributors' knowledge	9

Figure.: Representation of main actions cited by managers

Table 7.7 shows that firms take seriously knowledge provided by their distributors; they discuss (32 citations), talk (26) with their distributors in order to generate and acquire their knowledge, then they disseminate it (22 citations) throughout

departments, structure (21), record (18) and save (17) it finally, they integrate(11) and use (22) it. All these actions describe how firms handle their distributors' knowledge. Here some example of managers' verbatim:

We take seriously any information resulting from our distributors and we classify them; those which are technically feasible, those which are exploitable immediately and these which are usable later for a constraint such as requiring an investment, a problem of profitability, mentality changing.

Knowledge that is accumulated from the distributors is shared widely within the organization, stored as part of the company's knowledge-base

We initiate employees to use technology infrastructure for effective management of our distributors' knowledge; they record, classify and transmit it throughout departments.

Knowledge that is accumulated from the distributors is shared widely within the organization and stored as part of the company's knowledge-base

Q8: How does the organization learn from handling distributors' knowledge properly?

Table 7.8: Most cited words related to organizational learning

To transform	22
To create new operations	21
Adapt to new circumstances	18
To combine	13
To refine	11
Expand and leverage existing knowledge	4

Figure : Representation of the most cited words related to organizational learning

Firms learn from their distributors' knowledge by the transformation (cited 22 times), the combination and the refinement of knowledge in order to create (21 citations) and adapt (18 citations) new products/services. Examples of verbatim:

Yes, we argue that distributors' knowledge helps us to create operations and to adapt to new circumstances.

For us, it is necessary to combine distributors' knowledge with our existing knowledge package in order to refine our market understanding.

We usually meet our distributors in order to exchange ideas during the product/service innovation process

III.2.2.Distributors' knowledge outcomes:

Q9: What are the benefits of appropriate distributors' knowledge for the firm in term of extend of innovativeness?

Table 7.9: Main cited words related to Distributors' knowledge outcomes

New product development	25
Adapt to environment changing	23
Forecasting of new product sales.	20
Enhance our capacity to innovate	18
Work with a team spirit	16
Dynamic atmosphere	16
Motivates innovativeness	11
Profitability	7

Figure : Representation of the main cited words related to Distributors' knowledge outcomes

"New product development" cited 25 times, this illustrate the degree of importance of distributors' knowledge on

development new products. We can see also that words like adapt (23), forecasting (20), enhance (18), dynamic (16) are frequently cited during the in-depth interviews. This shows how distributors' knowledge can contribute to continuous innovation.

Distributors' integration in the innovation process brings profitability to the firm by reducing the costs and increasing the speed of new product introductions.

Distributors' knowledge sharing encourages us to enhance our capacity to innovate

Distributors' knowledge sharing creates a dynamic atmosphere and motivates innovativeness

We tend to learn from our distributors' experiences to succeed in new innovation process.

In order to verify the interviewees' answers concerning distributors' knowledge innovativeness outcomes them we have asked them to give specific examples of knowledge sharing that contributed to a particular innovativeness (Q10). Here come concretized examples.

Further to several distributors 'proposal we have proceeded to the conception of a new model (pink bedroom for girl child).

We have adapted our method of payment for some regions of northwest further to our distributors' difficulties to sell our products. In fact our distributors assert that consumer purchasing power in this region is henceforward low.

In spite of our product standardization we have expand our product range to be more competitive.

Guided by the managers' verbatim analysis and previous researches on distributors' market orientation (Siguaw et al, 1998; Yi Liu, 2009), knowledge sharing (Sheikh et al, 2008;

Cummings, 2003), firm's innovativeness (Wang et al, 2004; Roger et al, 2002), absorptive capacity (Cohen and Levinthal, 1990) [. . .] etc, we have proposed 59 as an eventual measurement of the DKSC. After eliminating redundant items and reformulating expressions, 50 statements are retained (see Appendix.7.3). However, 50 items is too much to administrate, so it was mandatory to proceed to further research in order to purify the scale and test its psychometric features.

Conclusion

On the basis of in- depth interviews and the extant literature, a pool of 50 items are derived in coherence with the definitions of the construct dimensions for eventual DKSC measurement. In fact, all the items are believed to represent the underlying facets of DKSC; it includes items that are reflective of distributors' competency to share his knowledge. (i.e. the type of knowledge provided by the distributors; the process of knowledge sharing) and of firm's capability to transform and use this knowledge for innovativeness ends (e.g., how firms can encourage, gather, transform and exploit their distributors' knowledge in order to enhance their innovation capacity).

As a next step, we propose to conduct, primarily, a factor analyses in order to purify the developed scale and to examine its psychometric properties, followed by, a confirmatory factor analysis in order to assess the validity of the retained measurement scale.

References

Ackoff, R.L. (1989), "From Data to Wisdom. Journal of Applied Systems Analysis", Volume 16: pp. 3-9.

Bazeley, P. (2006), "The contribution of computer software to integrating qualitative and quantitative data and analyses", Research in the Schools, 13(1), 64-74.

Churchill, G.A. (1979), "A paradigm for developing better measures of marketing constructs", Journal of Marketing Research, Vol. XVI, February, pp. 64-73.

Cohen, W.M. and Levinthal, D.A. (1990), "Absorptive capacity – a new perspective on learning and innovation", Administrative Science Quarterly, Vol. 35 No. 1, pp. 128-52.

Frazier Gary L., Elliot Maltz, Kersi D. Antia, Aric Rindfleisch (2009), "Distributor Sharing of Strategic Information with Suppliers", Journal of Marketing: Vol. 73, No. 4, pp. 31-43.

Grant, R. M. (1996) "Toward to a knowledge-based theory of the firm", Strategic Management Journal, 17(winter): 109-122.

Cummings J.,(2003), "Knowledge Sharing: A Review of the Literature", The World Bank .
Online.<http://lnweb90.worldbank.org>

Hartle F. (1995), "How to Re-engineer your Performance Management Process", London; p107.

Kohli, A. and Jaworski, B.J. (1990), "Market orientation: the construct, research propositions, and managerial implications", Journal of Marketing, Vol. 54 No. 2, pp. 1-18.

Kohli, A. K. and Jaworski, B.J. (1990). Market Orientation: The Construct, Research Propositions, and Managerial Implications. The Journal of Marketing, 54(2),1-18.

Leech Nancy L. and Onwuegbuzie Anthony J., (2007), “An Array of Qualitative Data Analysis Tools:A Call for Data Analysis Triangulation”, *School Psychology Quarterly*, Vol. 22, No. 4, 557–584.

Lisa A. Guion, David C. Diehl, and Debra McDonald, (2011) “Conducting an In-depth Interview”, Online. <http://edis.ifas.ufl.edu/pdffiles/FY/FY39300.pdf>.

Liu C.H. and David DC Tarn (2010), “Knowledge sourcing behaviour: A theoretical model based on knowledge base and network relationship perspectives”, *International Journal of Organizational Innovation*, 3(2), 58–69.

Narver, J.C. and Slater, S.F. (1990), “The effect of a market orientation on business profitability”, *Journal of Marketing*, Vol. 54 No. 4, pp. 22-35.

[Nonaka, Ikujiro](#) (1991). "[The knowledge creating company](#)", *Harvard Business Review* 69 (6 Nov–Dec): 96–104.

Roger J. Calantonea, S. Tamer Cavusgil, Yushan Zhao, (2002), “Learning orientation, firm innovation capability, and firm performance”, *Industrial Marketing Management* 31 (2002) 515–524.

Sheikh S. A. (2008), “Use of New Knowledge and Knowledge Management to Gain Competitive Advantage”, *Communications of the IBIMA*, Vol 1.

Siguaw, J.A., Simpson P.M. and Baker, T.L. (1998), “Effects of supplier market orientation on distributor market orientation and the channel relationship: the distributor perspective”, *Journal of Marketing*, Vol. 62, July, pp. 99-111.

Siu Loon Hoe, (2008) "Benefiting from customer and competitor knowledge: A market-based approach to

organizational learning", *Learning Organization, The*, Vol. 15
Iss: 3, pp.240 – 250.

Sudharshan D. and RON Sanchez, (1998), "Distribution
Equity: Creating Value through Managing Knowledge
Relationships with Distribution Channels", *Journal of Market
Focused Management*, 2, 309–338 (1998)

Teece, D. J., Pisano, G., & Shuen, A. (1997), "Dynamic
capabilities and strategic management", *Strategic Management
Journal*, 18(7), 509-533.

Van de Ven, A.H. (1986), "Central problem in the management
of innovation", *Management Science*, Vol. 32, pp. 590-607.

Wang C. L; Pervaiz K Ahmed, (2004), "The development and
validation of the organizational innovativeness construct using
confirmatory factor analysis" *European Journal of Innovation
Management*; 7, 4; ABI/INFORM Global. P303.

Weinert, F. E. (2001) "Vergleichende Leistungsmessung in
Schulen-eine umstrittene Selbstverständlichkeit. In Winterton
J.; Delamare F. Le Deist and Stringfellow E. (2005), "Typology
of knowledge, skills and competences: clarification of the
concept and prototype", Research report elaborated on behalf
of Cedefop / Thessaloniki. Online.
http://www.uk.ecorys.com/europeaninventory/publications/method/cedefop_typology.pdf

Yi Liu, Yuan Li, Jiaqi Xue (2009), "Transfer of market
knowledge in a channel relationship: Impacts of attitudinal
commitment and satisfaction", *Industrial Marketing
Management*.

Appendix

Appendix.1. Sample characteristics

Table I. Sample characteristics

<i>Organization's activity sector</i>	<i>Interviewee function</i>	<i>Interviews: time spent</i>	<i>Number of organizations</i>
<i>Food industry</i>			
FI 1 FI2 FI3	Marketing manager Marketing manager Development Manager	1 h 30 min 55 min 35min	3
<i>Pharmaceutical industry</i>			
Phi 1 Phi 2	R&D manager R&D manager	2h 1h40 min	2
<i>Textile industry</i>			
TI 1 TI2 TI3	Marketing manager Marketing manager R&D manager	45min 50min 1h10min	3
<i>Other manufacturing industry</i>			
OMI1 OMI2	R&D manager New product manager	55 min 1h	2
<i>Telephonic operators</i>			
TO1 TO2	Marketing manager Marketing manager	45min 40min	2

Appendix 2. Interview Guide:

Table II. Interviews guide

	DKSC dimensions	Interviews guide
Theme 1: Perception of importance of distributors' knowledge	<i>Sub-dimension 1:</i> Types of distributors' knowledge.	<ul style="list-style-type: none"> - What does distributor knowledge mean to you? Meanings / significance from firm perspective. - What type of knowledge can be shared with distributors? (knowledge about customers/knowledge about competitors) - To what extent can the distributor be a source of useful knowledge to the firms?
	<i>Sub-dimension 2:</i> Distributor's Sharing knowledge as a process	<ul style="list-style-type: none"> - According to you, how did distributor gather his knowledge? - Do you think that distributor has the competency to level and interpret valuable and consistent information? - How did the organization get knowledge from its distributors?
Theme 2: distributors' knowledge consequences/outcomes	<i>Sub-dimension 1:</i> Firm's capability	<ul style="list-style-type: none"> - How should firms handle distributor's knowledge? - How does the organization learn from handling distributors' knowledge properly?
	<i>Sub-dimension 2:</i> Knowledge outcomes	<ul style="list-style-type: none"> - What are the benefits of appropriate distributors' knowledge for the firm in term of extend of innovativeness? - Give specific examples of knowledge sharing that contributed to a particular innovativeness.

Appendix 3. The DKSC measurement scale

Dimensions and Sub-Dimensions

Associated with DKSC

Dimension 1: Distributors' competency

- *Sub-dimension 1: Types of distributors' knowledge.*
- *Attribute 1 knowledge about customers*

- *Attribute 2 : knowledge about competitors:*

- *Sub-dimension 2 : Distributor's Sharing knowledge as a process*

Pool of items

1. Distributors' closeness to the customers endows them with a precious knowledge about them.
 2. Distributors are more knowledgeable about customers' needs than customers themselves.
 3. We can rely on distributors to detect customers' needs in terms of functions, forms, price, promotions, services, and credit/terms in order to fine-tune the marketing mix.
 4. Distributors have the competency to identify gaps in the product space which give the firm new options for product development.
 5. We consider that distributors hold more expertise and knowledge than customers in innovation
 6. Distributor provides us with a lot of knowledge related to our competitive advantage.
 7. Distributor provides us with a lot of knowledge related to the market potential in the future.
 8. Distributor provides us a lot of knowledge related to the competitors' intention to introduce new product.
 9. Distributors inform us about the product range of competitors.
 10. Distributors can inform us about the competitors' strengths and weaknesses.
 11. Distributors provide us with information about of eventually opportunities and threats.
 12. Distributors have the possibility to observe customers' purchasing behavior.
 13. Distributors have the possibility to
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ask relevant question and to listen to customers.

14. Distributors have the possibility to initiate a dialogue with customers.
15. Distributors receive and analyze customers complains.
16. Distributors may permit collaborative test marketing to develop information for better forecasting of new product sales.
17. Distributors usually pretest the new products/services in order to detect the necessary improvements before the final launch.
18. Distributors can advise us on advantageous positioning of future product introductions that would impact the competitor.
19. Distributors rely on his experience and their expertise to interpret and select valuable knowledge.
20. The firm's technology infrastructure encourages distributors' knowledge transfer.
21. Distributors intend to share their experience or know-how with other organizational members.

Dimension 2: *Distributors' knowledge consequences/outcomes*

- Sub-dimension 1: Firm's capability

22. We always meet with our distributors to talk about customers' intentions, problems and needs during the innovation process.
 23. Marketing personnel spend time discussing with distributors.
 24. Our staff takes seriously distributors' knowledge.
 25. Distributors' knowledge is acquired through in-depth interviews, reports, direct contact.
 26. Distributors are encouraged to provide the firm with the knowledge at any time.
 27. Employees are encouraged to disseminate distributors' knowledge with other colleagues.
 28. Firm's technology infrastructure is available to disseminate distributors' knowledge
 29. Fairs and visits facilitate the sharing of ideas between employees and distributors.
 30. Reports of our distributors are recorded in electronic databases.
 31. We initiate employees to use
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technology infrastructure for effective management of our distributors' knowledge.

32. Distributors' knowledge is transmitted throughout departments.
33. Our staff classifies and transforms distributors' knowledge for better decision making.
34. Knowledge that is accumulated from the distributors is shared widely within the organization, stored as part of the company's knowledge-base
35. We usually meet our distributors in order to exchange ideas during the product/service innovation process
36. We draw upon distributors' suggestions to launch new products/services.
37. We adapt and modify our new products/services on the basis of distributors' feedback
38. We tend to learn from our distributors' experiences to succeed in new innovation process.
39. We communicate knowledge about new products/services for distributors.

40. Innovativeness is improved by a continuous collaboration between the firm and its stakeholders.
 41. Distributors' integration in the innovation process brings profitability to the firm by reducing the costs and increasing the speed of new product introductions.
 42. Distributors' knowledge sharing encourages us to enhance our capacity to innovate
 43. Distributors' knowledge sharing creates a dynamic atmosphere and motivates innovativeness
 44. Our distributors work with us as a team.
 45. Collecting knowledge about customers and competitors allow us to be accurate in developing new products.
 46. Distributors' knowledge of customers helps the firm to create new products
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- *Sub-dimension 2: Distributors' knowledge outcomes*

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47. The distributor is considered as a partner.
 48. The distributor is considered as a member of our staff.
 49. The distributor becomes identifies with our company.
 50. The distributor is considered as a source of feedback for the company.
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