



KNOWLEDGE AND ITS CREATION – THE CASE OF INTRODUCING PRODUCT TO THE MARKET

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Received 26 May 2011; accepted 2 September 2011

Abstract. This paper deals with a marketing strategy of product Pregnum[®] of Walmark Company from the view of knowledge creation and knowledge sharing for successful introducing of product to the market. Product is a nutritional supplement which is intended for pregnant women. This paper is divided into the following main chapters: First chapter deals with knowledge management of main relevant definitions and resources. Second chapter deals with characteristics of market and product. Third chapter shows a research method and main results. Fourth chapter, the discussion, shows the main points of created marketing strategy. The last chapter is intended as a conclusion in terms of knowledge use by creating the given marketing strategy.

Keywords: knowledge management, marketing strategy, nutritional supplements market, Walmark corp., Pregnum[®].

JEL Classification: M21, M31, L15, L21, L25, L65.

ŽINIOS IR JŲ KŪRIMAS – PRODUKTO IŠLEIDIMO Į RINKĄ ATVEJIS

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Įteikta 2011-05-26; priimta 2011-09-02

Santrauka. Šiame straipsnyje nagrinėjama kompanijos „Walmark“ Pregnum[®] produkto rinkodaros strategija žinių kūrimo ir dalijimosi žiniomis požiūriais, siekiant sėkmingai išleisti produktą į rinką. Nagrinėjamas produktas yra maisto papildas, skirtas nėščioms moterims. Pirmoje straipsnio dalyje nagrinėjamos esminės žinių valdymo sąvokos ir kiti su žinių valdymu susiję aspektai. Kita straipsnio dalis skirta rinkos ir produkto savybėms. Trečioje straipsnio dalyje aprašytas tyrimo metodas ir rezultatai. Ketvirtoje straipsnio dalyje aptariami diskusijos rezultatai – sukurti rinkodaros strategijos aspektai. Galiausiai straipsnyje pateikiamos išvados žinių naudojimo, kuriant rinkodaros strategiją, požiūriu.

Reikšminiai žodžiai: žinių valdymas, rinkodaros strategija, maisto papildų rinka, kompanija „Walmark“, Pregnum[®].

1. Introduction

The following definitions describe the main theoretical resources and ideas of knowledge management and its approaches.

Ancient philosophers defined knowledge many years ago. Their definitions are basis for recent authors. For ancient Greek philosophers (Socrates, Plato and Aristotle), knowledge was a homogenous construct that ultimately was representative of the truth. Thus knowledge was the truth (Schwartz *et al.* 2006).

Plato was one of the first philosophers who emphasized the importance of knowledge. He stressed the importance of dialogue as a process of clarifying the essence of things in the search for new knowledge. Dialogue is an effective method to articulate one's tacit knowledge and share the articulated knowledge with others (Nonaka *et al.* 2008). Nonaka uses Aristotle's *phronésis* (practical wisdom) to explain his theory of knowledge.

Descartes, Leibnitz and Locke challenged the ideas of knowledge as faith and developed ideas of knowledge as accurate, provable facts. Hegel and Kant defined knowledge as divergent meaning or justified true beliefs (Schwartz *et al.* 2006). Nonaka also uses the definition mentioned.

Michael Polanyi (1966) stands in opposition to the objective, analytical view that sees knowledge as something human beings obtain by analyzing the object as a thing that exists separately and beyond the self. He argues that human beings obtain new knowledge through their individual, active, and subjective shaping and integration of experience, which he calls "tacit knowing". For Polanyi, objective, analytical and explicit knowledge is a logic void of meaning that is no more than "knowledge without a knowing subject", although he does not deny the significance of objective, explicit knowledge (Nonaka *et al.* 2008).

The current state of knowledge differs from authors who define it. The theory of knowledge creation is based on viewing the world and all things in it as a continuous flow. Knowledge is more than a simple collection of information. Knowledge is born of human interaction. Knowledge is created by people in their interactions with each other and the environment (Nonaka *et al.* 2008).

Information is not knowledge. Although information is an enhanced form of data, knowledge is not an enhanced form of information. Knowledge is not and cannot be the same as information, not even a special form of information. It cannot be handled as information, does not have the same uses. Having information is not the same as knowing. Not everybody, who read cookbooks, is necessarily a great chef. Knowledge is purposeful coordination of action, not description of action.

Its quality can be judged from the quality of the outcome (product) or even from the quality of the coordination (process) (Zeleny 2005).

One of the determining factors of success on the market is high satisfaction and loyalty (retention) of customers which is possible to achieve and maintain through the loyalty and motivation of employees. This includes their identification with company, relationships with sellers, suppliers and trading partners (Jankal, Jankalová 2011).

Flowing from the actual experiences, it is needed to permanently develop the knowledge in the area of managerial and behavioural sciences, not only by working out of older knowledge, and adapt it to the new conditions, but also by newer, less traditional approaches (Blašková 2010).

2. Characteristics of the market and product

2.1. Basic facts about the Slovak Republic

The Slovak Republic (short form: Slovakia) is a landlocked state in Central Europe bordered by the Czech Republic and Austria to the west, Poland to the north, the Ukraine to the east and Hungary to the south. The Slovak Republic was an integral part of Czechoslovakia till the end of 1992.

- Population: 5.429.763 inhabitants (Statistical office of the Slovak Republic).
- Capital city: Bratislava.
- Politics: Parliamentary republic.
- Member state: the European Union, NATO, the United Nations, OECD and WTO among others.
- Official language: Slovak.
- Independence from January 1st 1993.

2.2. Company overview – Basic information about producer – Walmark Company

Walmark Company¹ is a modern international pharmaceutical company which produces and sells big variety of nutritional supplements. It was established shortly after the velvet revolution in the Czech Republic. Although Walmark is not a large size pharmaceutical company, it has a competitive advantage which helps it to maintain stable position on the market. In 20 years of being on the market Walmark has got a significant position not only in Slovakia but also in many other European countries. Nowadays Walmark has a leading position on the market of nutritional supplements in the Czech Republic, the Slovak Republic, Romania, Bulgaria, France, Lithuania, Latvia, Poland and Hungary. Some of the nutritional supplements, especially for children, are popular and well sold. Walmark keeps its focus on research and development which brings it strong business results. Walmark with its product for pregnant women has the market share of 5.4%.

¹ www.walmark.sk.

2.3. Market characteristic

The market of nutritional supplements is oversaturated in Slovakia. The reason is a huge amount of nutritional supplements imported from abroad or produced in domestic market. Despite this fact the market is perspective, its profit is 20 and more billions of dollars per year in the world, in Slovakia it is around 25 EUR per person per year. Prevention is better than cure so many people buy nutritional supplements for not being ill. People do not have time to cure at home so it is simpler for them to take some medicine or vitamins and minerals at the time when the appearance of illnesses increases or when women need it, for example for well growing of their babies.

Pregnancy vitamins are quite popular. A lot of pregnant women take them. Every woman usually knows when to come to the pharmacy and which kind of nutritional supplement she wants. Some of them need the pharmacist's advice because they cannot find on the Internet all important information about products. Sometimes gynecologists tell them what kind of vitamins they should take. Daily need of vitamins depends on age, pregnancy phase and lactation. It is important to get right amount of vitamins during pregnancy. Nowadays multivitamins for pregnant women are popular but they can damage their baby because they usually contain vitamin A.

2.4. Product characteristics

Pregnum is a free medicine drug for the time of pregnancy planning, pregnancy and nursing. Pregnum is a well-balanced combination of substances which are necessary for healthy growth of fetus and health status of pregnant and nursing mother. It helps to replenish necessary matters for the time of pregnancy and nursing which could be insufficient because of non-balanced diet. Pregnum is totally safe for the mother's organism and also for the fetus. There are no indications of negative impacts of vitamins or minerals from the product on fetus or mother's health. Pregnum is not a multivitamin. It consists of four main matters, which are necessary during the pregnancy. Those are: dokazehexaen acid (DHA), folic acid, magnesium and iodine. *Pregnum has several effects*: balanced combination of necessary matters for correct growth of fetus and health status of pregnant and nursing mother; support for nervous system's correct growth; positive impact on child's intelligence growth.

The quality of this product was awarded by the price "Food Product of the Year 2008"². The main benefits of the product are: tradition and reputation of the producer the Walmark company; registration as a medicinal preparation; positive impacts on fetus growth; complex of necessary vitamins and minerals for fetus and mother; it does not

contain vitamin A, which could be potentially dangerous during pregnancy.

This product is available in most of pharmacies in the Slovak Republic. There is also possibility to order it via the Internet which could be a comfortable solution for the future mothers. After purchasing the product a customer can enter Walmark's "Club of Health"³ and participate in the benefits given. Every customer may use the customer hot line, which is free of charge and its number is on every Walmark's product. Every Walmark's product has its own Internet site where some additional information is stated.

3. Research methods and results

The results come from the authors' research which refers to a practical proposal of product introduction to the market. The authors closely cooperate with Walmark Company. The research was made in the Zilina region in the years 2009 and 2010. In the region mentioned there is also a subsidiary of Walmark Company. The research was quite effective (low costs, fast responses, valuable information for the company). *A goal of the research* was an analysis of basic awareness about the product and about its competitors in the target group. The target group was defined as: women in the period of pregnancy planning, pregnant and lactating women. The *main indicators* measured and *research methods* used are:

1. References about products on the specialized web sites – content analysis.
2. References from pharmacists – interview and mystery shopping.
3. Basic communication effects of product's package – structured interview.
4. Medical expert opinion about the product – expert opinion.

Content analysis: available sources found on the Internet were analyzed – especially most visited discussion forums, websites about pregnant women, nutrition and missing vitamins in pregnancy. We looked for opinions, recommendations and experiences with Pregnum product and product of competitors. The authors checked 10 websites and about 20 discussion forums to get 200 opinions referring to products and nutritional supplements for pregnant women. These methods were used in the year 2009 when the product was launched and despite the previous marketing activities it did not increase its market share. In the following picture, we can see the market share of Pregnum which was analyzed from websites and forums. It was only 1% (comparing to Centrum Materna 20%, Calibrium mami 18% and Calibrium babyplan 19%). After one year of marketing activities, the

² Annual competition held by Association of Nutrition Advisors of Czech Republic.

³ Walmark's sales promotion activity. Club membership is conditioned by purchasing of products. Registration with personal data is required. Club members have possibilities of discounts, on-line orders, newsletters, etc.

market share was increased to 5.4% in the year 2010 and it is still rising.

Through discussion forums we have found out why pregnant women take nutritional supplements. It is because pregnant women mostly claimed why they buy the concrete product. As we think that the information is reliable we consider the opinions to be useful for the research. Here are the main reasons why they take the concrete product:

- their gynecologist gives them advice to take it (37% of all responses),
- they do not take any tablets because the balanced nourishment can give them all vitamins and minerals they need (25%),
- they do not take any tablets because they eat food which is natural, harmless and healthy (5%),
- nobody gives them advice, they find all information by themselves (30%).

Based on these results, the authors have found that pregnant women are influenced by doctors a lot but they also search for information by themselves. This means that company has to focus on giving more information on the Internet and also offer information fliers which should be placed in doctors' waiting rooms.

Interview and mystery shopping: when defining customer segments we found out that the crucial significance is in hands of pharmacists and their recommendations. The authors were interested in opinions about the product and recommendations for the best nutritional supplement in pregnancy in an interview. As an additional method we used the observation method. Through the method we searched for the additional information about the rival companies products, for example where the products are placed and what kind of information connected with the products is offered. The authors visited five pharmacies in the year 2009.

The product Pregnum was placed on the same shelf as other products intended for pregnant women. The products were situated on the visible place in the pharmacy. Pharmacies which are not self-service have these products in the warehouse or behind the vault so the products were unavailable to people to see.

Pharmacists did not know anything about Pregnum. They had just basic information about the products of the biggest competitors (Centrum Materna, Calibrium mami and babyplan). They provided almost the same answers. They recommended the best known products (Centrum Materna, Calibrium mami and babyplan). They said that those products were best sold. They claimed that there was no difference in all products for pregnant women, almost all of them have the same composition and women should ask their gynecologist for advice. Some of the products are multivitamins; some consist of just one or two vitamins or minerals. It depends on a doctor which nutritional sup-

plement they recommend their patients or it depends on a woman which product she prioritizes and needs.

Based on the analysis of the interviews mentioned the authors found that if the pharmacists are not motivated enough they do not offer products of companies. If medical representatives do not give pharmacists much information about the product, they cannot give more to the customers, but the basic information.

Structured interview: was used to identify communication effects of product's package. The authors monitored communication effects of the product Pregnum and its direct competitors. Here are some opinions about the product package:

- it reminds me of another product of Walmark Company because it has the same package (25% of the asked),
- it reminds me of some pills for curing inflammations or some other illness (70%),
- it reminds me of the pills for pregnant women because of the name of the product and the picture of the pregnant woman on it (5%).

The results show that Walmark should change the product package because now it reminds customers of other products but not the products for pregnant women. Most of the women complained that they looked for the information by themselves so they could come to the pharmacy without being able to recognize the product.

Expert opinion: it is taken as an opinion of somebody who can influence decisions of pregnant women and also somebody who potentially can buy the products for pregnant women. In this case it is mainly the opinion of gynecologists and pharmacists. The authors tried to get the experts' opinions about the product for pregnant women from two gynecologists in the town of Zilina. They were very busy so they were very concise in their answers. They said that women got enough vitamins and minerals from a balanced diet (enough fruit, vegetable, grain, etc.) so they do not need to take them in a substitute form, for example, as a nutritional supplement. Yet if there is a problem, for instance a woman has lack of vitamins, for example iron, she has to take it in a tablet form. They did not say any concrete name of the nutritional supplement they recommended.

While the authors were in the doctors' ambulances they noticed that they held some boxes of prenatal products and the nurses were wearing T-shirts with Centrum Materna label. They also had some calendars, pens and other propagation materials from pharmaceutical companies. This shows that the companies try to beat each other by offering the doctors some motivational elements and so to enforce their products.

4. Discussion: marketing strategy main points

Marketing strategy for Pregnum is based on the research and market analysis results. It is a complex strategy develo-

ped by the authors and is step by step realized by Walmark (Main theoretical backgrounds for the strategy creation are represented by: Baines 2008; Dorčák, Delina 2011; Kerin, Peterson 2009; Kotler, Keller 2007; Lendel, Varmus 2011; Porter 1998; Robbins, Coulter 2004; Senge 2007; Soviar *et al.* 2010; Strišš *et al.* 2009; Závodská, Šramová 2010). Due to the complexity of the strategy we will show just an overview of the main points: Development of the Pregnum brand value:

- Differentiation from the other company's products: change of the package colour; change of symbolism on the package (removing of red colour symbolizing blood), etc.;
- The beginning of measurement of the brand value: projecting and implementation of standard brand value measuring processes.

Appropriate media for the product's marketing communication:

- Effectiveness of marketing communication: orientation on low cost media with higher possibility of target group reach.
- In the Slovak market there are two specialized magazines referring to women and their health. The strategy also contains the product's advertizing plan and budget in these magazines.
- Advertising banners on the most visited websites and discussion forums about health with orientation toward women and gravidity/pregnancy issues.
- Customer hotline center: all requests that are gathered by the customer hotline centre should be processed by management in order to develop the products.
- Centralized medical information for quick response: a new system where all information on nutritional supplements should be centralized in a computer database, giving the medical representatives an easier access to them. The data can be quickly printed and faxed to doctors and pharmacists. This can improve the speed of response to inquiries.
- Changing the size and structure of tablets: some people have difficulty with swallowing tablets because of their size and some have a problem with their taste. The company should try to modify tablets to have better taste. They should join some vitamins which can help to cure people who have some diseases: for example tablets for people with diabetes or other diseases where one needs to take a lot of vitamins, usually separately.

Sales promotion:

- Support of physical exercises events for pregnant women: the product placement, free samples, branded tools for exercises (e.g.: "fit balls", pads, etc.), etc.

- Competitions on chosen websites with the connection to the banners. These banners are linked with the company's website where there is a possibility to participate in the competition. Pregnum is the price. The aim of the competitions is also to gather relevant information about a target group. This is enabled by formulating the questions given.
- Propagation materials for gynecologists and pharmacists as a motivation element: branded t-shirts, jackets, pens, cups, etc.
- Information flyers located in gynecologists waiting-rooms and in pharmacies.
- Sales and discount systems for pharmacies and Walmark club members.

Development and implementation of reporting system connected to company's marketing information system:

- Effective reporting system from sales representatives in the field based on regularity and brevity.
- Fields of interest: relevant information about competitors (sales support, discounts, product placement, etc.); information about connection of competitors with pharmacies and gynecologists, etc.
- On-line secured web access.

5. Conclusion: knowledge use by creating marketing strategy

Relevant information and experience generate knowledge. To implement the strategy, companies must change their vision. This new vision is supposed to be the leading frame for every employee and should contribute to their motivation to create innovative ideas and solve problems creatively. This vision, which is in accordance with corporation objectives and also employees objectives, can help to change mindsets of employees and also the whole strategic management. The vision is set on actual and relevant knowledge. Let us show **the main aspects** of knowledge creation process based on experience from the Pregnum marketing strategy:

- **Vision**, its setting or modification.
- Setting of specific **corporate goals**.
- Setting of specific actions for reaching the goals given. This should be performed in the framework of the following questions:
 - What kind of information is available for the company (secondary information)?
 - What kind of information must be obtained (primary information)?
 - Where could people or companies with relevant or necessary knowledge about market, customers, competitors, etc. be found? These subjects can be found inside

the company or in its environment. The current trend is to look for these subjects more and more outside the company. There are a lot of possibilities for cooperation management with perspective of competitive advantage (Axelrod 1984; Ivanička 1997; Soviar 2009): clusters, cooperation with universities, with research centres, with marketing research agencies, etc. E.g.: Walmark cooperates with the University of Zilina in order to obtain an innovative and a low cost marketing strategy.

- Selection of available scientific **methods** which will be used in the process. This can also be considered as the process of knowledge creation in order to find appropriate methods.
- **Adaptation** of goals, actions and methods to the **cultural environment** of application. Cultural parameters differ from country to country. Expansion abroad is a common case in the period of globalization. All marketing strategies must accept cultural differences.
- Combination of goals, actions and methods should lead to a formulation of complex **projects** e.g. marketing strategy, product strategy, communication strategy, business plans, etc.
- After **implementation** of the projects given, there should always be, besides **controlling, the effects analysis**. This serves as **feedback** on gaining knowledge right from the implementation praxis. All experience and information should be processed by the management/marketing information system. Here is also space for cooperation management in case of data analysis from an external expert (or company).
- Knowledge system is based on **feedback**. This should be performed in every relevant step: by analysis, by implementation, by controlling, by modifying of strategies and by studying of effects after implementation. All relevant data and experience should serve for achieving further company's goals.

Finally, we created a frame of strategic process regarding the main factors (Fig. 1). These factors are generalized for the strategic purposes of marketing management. Company's **vision** must be the first and main accelerator of all processes. Nowadays, companies have changed their vision⁴ because they realized that the most important what can bring them profit is common good or customer satisfaction. Profit has always been the main objective because every company is successful if it is profitable. We have to mention that profit comes sooner or later but only if you can satisfy your customer. Companies have to change their philosophy according to the previously changed vision. Regarding the vision and philosophy there are the main company's **goals** defined. To achieve these goals there are three **main**

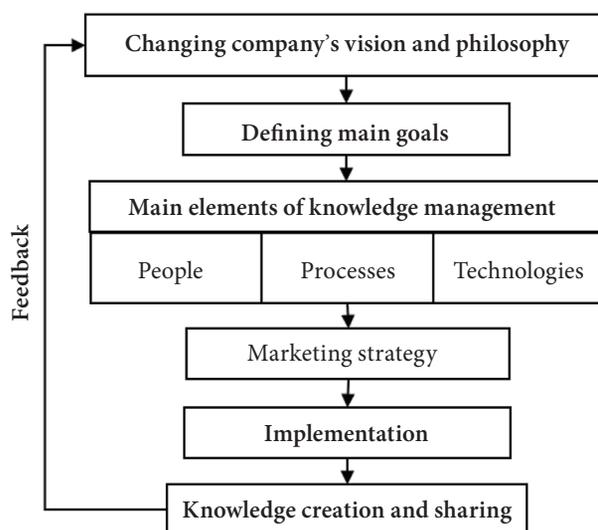


Fig. 1. Generalized process of corporate knowledge creation

elements of knowledge management: *people* (employees, customers), *technologies* and *processes*. After we get all information and find out who has appropriate knowledge, we can start making some **marketing strategy**. It has to help to achieve the goals set. After the marketing strategy is made the company has to try to implement it. We also need knowledge connected with this part because effective implementation of marketing strategy is difficult without knowing how to do it. The main outputs of this environment are **knowledge** in the form of real improvements. It is important to externalize knowledge (Nonaka, Konno 1998). If employees are well motivated, they produce knowledge but this knowledge is often just gathered but not articulated. This leads to widening of their own knowledge but they do not help each other. Managers should assure externalization of employees' knowledge. There is also **feedback** in this design which is formed regarding the whole process and finally affects the main vision. The process is permanent. After everything is implemented and controlled, there is new knowledge we need to use for redefining vision and rebuilding all processes according to this.

Acknowledgement

This paper was partially supported by the Slovak scientific grant VEGA 1/0992/11 2011-2013.

References

Axelrod, R. 1984. *The Evolution of Cooperation*. New York: Basic Books.
 Baines, P. 2008. *Marketing*. Oxford University Press.

⁴ Profitability was usually the vision of most of the companies.

- Blašková, M. 2010. Creative proactive-concluding theory of motivating, *Verslas: teorija ir praktika* [Business: Theory and Practice] 11(1): 39–48. doi:10.3846/btp.2010.05
- Dorčák, P.; Delina, R. 2011. Vplyv elektronických marketingových podnikových riešení na ekonomickú výkonnosť, *Ekonomický Časopis* 59(1): 44–58.
- Ivanička, K. 1997. *Základy synergetiky*. Banská Bystrica: Matej Bel University.
- Jankal, R.; Jankalová, M. 2011. Mystery shopping – the tool of employee communication skills evaluation, *Verslas: teorija ir praktika* [Business: Theory and Practice] 12(1): 45–49. doi:10.3846/btp.2011.05
- Kerin, R.; Peterson, R. 2009. *Strategic Marketing Problems. Cases and Comments*. Pearson.
- Kotler, P.; Keller, K. L. 2007. *Marketing Management*. Prague: Grada.
- Lendel, V.; Varmus, M. 2011. Creation and implementation of the innovation strategy in the enterprise, *Journal Economics and Management* 16: 819–825.
- Nonaka, I.; Konno, N. 1998. The concept of “Ba”: building a foundation for knowledge creation, *California Management Review* 40(3): 40–54.
- Nonaka, I.; Toyama, R.; Hirata, T. 2008. *Managing Flows – a Process Theory of the Knowledge-Based Firms*. London: Palgrave Macmillan.
- Polanyi, M. 1966. *The Tacit Dimension*. London: Routledge & Kegan Paul.
- Porter, M. 1998. *On Competition*. Boston: Harvard Business School.
- Robbins, P. S.; Coulter, M. 2004. *Management*. Prague: Grada.
- Schwartz, G. D., et al. 2006. *Encyclopedia of Knowledge Management*. London: Idea.
- Senge, P. 2007. *Pátá disciplína – teorie a praxe učící se organizace*. Praha: Management Press.
- Soviar, J. 2009. Cluster initiatives in Žilina region (Slovak Republic), in *Economics and Management – 2009*. Kaunas: Kaunas University of Technology, 528–534.
- Soviar, J.; Púček, M.; Krušínský, P. 2010. Relevantné informácie o trhu ako marketingová koncepcia a rámcová stratégia firmy Anheuser-Busch, in *Vedecký monografický zborník: Rozvoj marketingu v teórii a praxi*. University of Žilina: EDIS, 62–65.
- Strišš, J.; Vodák, J.; Kubina, M.; Jankal, R.; Soviar, J. 2009. *Marketingové riadenie*. University of Žilina: EDIS.
- Závodská, A.; Šramová, V. 2010. Model of marketing communication of nutritional supplements, *Journal of Information, Control and Management Systems* 8(4): 457–462.
- Zeleny, M. 2005. *HSM Integrating Knowledge, Management and Systems*. Singapore: World Scientific Publishing Co. Pte. Ltd. doi:10.1142/9789812703538

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