

An analysis of product innovation of philips management essay

[Business](#), [Management](#)



In 1891, Anton and Gerard Philips established the Philips & Co in Eindhoven, the Netherlands. Now the company is known as Royal Philips Electronics . The company begun to produce carbon-filament lamps and later became one of the largest producer in Europe. During the industrial revolution, the company set up the first research laboratory. The result of this early laboratory is its first innovation in the X-ray and radio technology. Since then, R&D and innovation have been regarded as the core of Philips activities. It made many breakthroughs to improve customers' life, such as the Compact Cassette and CD. The mission of the company is to " improving people's lives through meaningful innovation". The brand also promise of " sense and simplicity". This is the company's commitment to deliver advanced, simple, and designed around all the needs of customers. Philips invests on consumer lifestyle survey around the world. Innovation is also one important process of its business. It has been involved in " Open Innovation" through relationships with globally academic and industrial partners. There is a High Tech Campus in Eindhoven, Netherlands, a Philips Innovation Campus in Bangalore, India, and one Research center in Shanghai, China. They are some examples of Philips' open innovation center. According to Philips official documents, in 2012, it invested EUR 1. 810 billion in Research and Development. Today, Philips owns more than 59, 000 patent rights, 81, 000 design rights. In 2012 only, Philips created almost 1, 500 patents. These patents focus on the growing area in health and well-being (www. philips. com, 2013). Therefore we can see Philips has a long history of innovation and maintain consistent innovation process. In 2010, Philip promoted another interesting kitchen application- Air fryer. It is a revolutionary kitchen

product in home cooking. It allow users to use little or no oil to cook when they want to cook and eat deep fried food, such as French fries. The technology in the Air fryer is the patented " Rapid Air technology". This technology can circulate hot air around grill component. By doing so, the Air fryer can make delicious meals with up to 80% less fat (www. philip. com, 2010). Air fryer uses less oil but still makes perfect French fries, crispy chicken nuggets etc. The whole process just takes twelve minutes. According to www. philip. com (2010), Air fryer also is a perfect kitchen applicants for busy chefs at home. It allows one to do several recipes at the same time. The smart timer can pre-set the cooking times. The times is up to 30 minutes. By doing so, it allows one to do other work when the Air fryer is on. A Food Separator Accessory within the Air Fryer can maintain the expected original taste when multiple foods at once without mixing the taste. Meanwhile, the Air fryer is very easy to clean. The removable surfaces make it easy to separate the parts to wash. Meanwhile, the dishwasher-safe and non-stick surfaces make it much more easier to clean and maintain clear. What's more, a brochure contains 25 delicious recipes is contained in the package. The recipes are all healthy, nutritious and tasty food for daily family life. For the new-users of Air fryer, they can just simply follow the instructions in the recipes to prepare delicious food for families. The figures in the Q2 2012 Quarterly report and Semi-annual report show that Philips' Air Fryer has already been launched and sold in more than 60 countries, such as the United Kingdom, Australia Japan, China, India. These locations cover different culture of lifestyle. In this essay, I will apply the Problem Analysis as the academic theory to evaluate Philips' Air Fryer's performance. By analyzing

the success of Air fryer within the concept, we may gain some helpful hint for our future career as a marketer.

2. The Theory of Problem Analysis

In this specific case, the problem-based approach for product innovation is the most proper academic theory base. According to Crawford et al (2011), this approach is one of the most productive concept-generating system. One of the major cause of new product failure is the lack of real need by the supposed users. If we use the problem based theory, it is possible to avoid this kind of failure. Therefore, one of the most dangerous situation could be avoided. The following graph shows the Problem-Based Concept Generation concept. Team members gather needs and problems of stakeholdersSources of stakeholder needs: Search of internal records, direct input from technical and marketing, problem analysis, scenario analysisGather information from stakeholder contacts through interviews, focus groups, role playing, observation. Pool of problemsScreen problem pool to acceptable problem setUndertake problem-solving efforts (by new product team members, and/or through group creativity techniques such as brainstorming or discipline panels. Choose acceptable solution(s) and prepare concept statements. Determine category of interest (PIC) and make thorough analysis of that situation-company, customers, resellers, etc.(Figure 1.

Crawford. et. al, 2011, p126)As we can see from the figure 1, there are two major process of the problem-based concept. The first step is gathering the problems. When gathered enough problems, the next step is to solve the problems. Generally speaking, gathering information is usually the first step of an academic work. Only by gathering enough information, we can develop

a whole picture of the background information and situation. It is the same with the problem innovation process. It is one of the most important key points to find out what are the customers' problem. It is the primary task. Based on the model of Figure 1, there are four major sources of stakeholder needs: internal records, direct input from technical and marketing, problem analysis, scenario analysis. These sources separately play different functions and equal importance. Among these four sources, I will focus on the Problem analysis. In some successful product innovation cases, it seems that the firms, or the key leaders emphasize the opportunity they found, such as certain products or service that others didn't sense or appreciate. Therefore, we can see problem analysis as one our golden rule when relates to product innovation. Furthermore, several recent award-winning product designs already gain benefits from problem analysis, such as IBM'S Aptiva S computer, Dyson's Airblade, Coleman's Safe Keep Monitors.

2. 1 Procedure Analysis Procedure

In reality, there are several ways in problem analysis. However, the most commonly used procedure is reverse brainstorming. Within this concept, participants need to point out a list of key problems with the product that they use in daily life. Then the participants classify and prioritize the most important problems for the product improvement. The general steps is as follows.

2. 1. 1 Step one

The first and one most important step is to determine the an appropriate product or activity category for the exploration. However, if the product

innovation charter already has category dimension, including a use, user, or product, in the focus statement, we can jump to the next step.

2. 1. 2 Step two

Within that category, we need to identify a group of heavy product users or activity participants. These heavy user are supposed to have a better understanding of the existing problems. More importantly, they may present the buyer in the expected market.

2. 1. 3 Step three

When we done the previous steps, we need to go further. The common way is to rate (1) the benefits they want to gain from the products and (2) the benefits they are getting. The differences between (1) and (2) indicate problems. Complaints are common action and always seen as the request for new products.

2. 1. 4 Step four

The final step is to sort and rank the found problems according to their severity or importance. There are various methods could be used to finish this step. Experts' opinions and suggestion could one source. Published Sources have been frequently used. The other one is Stakeholder Contacts, includes: interviewing, focus group, observation, role playing.

3. Air Fryer's Performance

Philips has applied its outstanding innovation resources to address the needs and challenges. Philips' Air fryer was launched in 2010. Since then, it has rapidly expanded into more than 60 countries in the world. This innovative

kitchen appliance creates meals with up to 80% less fat. The sales of this have significantly exceeded projected volumes(www. philips. com, 2012). This totally new Air fryer is designed by Philips' Drachten center. This center is a part of the Consumer Lifestyle(CL) sector. The center is one of the largest product innovation center of Consumer Lifestyle of Philips in Europe. This center is a consumer centric and market-oriented organization. It committed to offer a healthy and comfortable life for consumers. This department has been focused on the investing consumer's lifestyle. They will design and launch new product(both " new-to-the world product" and " improvement and revision to existing products". The Consumer Lifestyle product includes: Personal Care, Health& Wellness and Domestic Appliances (www. philips, 2011). This Consumer Lifestyle process match the theory of " Finding an Solving Customers' Problems" in the New Products Management (10th edition) by Crawford, M. and Di Benedetto, A. Specifically , I will use the theory of Problem analysis to evaluate the performance of Air fryer. The innovation process of Air fryer successfully demonstrate the right innovative steps for " finding and solving customers' problem". As a new-to-the-world product, Air fryer capture the new market for oil-free cooking. This success owes to the proper application of Problem Analysis concept.

3. 1 Step one

Determine the appropriate product or activity category for exploration. For the traditional category, the Air fryer belongs to the kitchen appliance. However, in this case, Philips divide their own way of category (www. philips. com, 2012)According to the Philips (2013) Methodology for Calculating Lives

Improved, Philips is trying to achieve the goal that make the world healthier. Moreover, Philips also make effort to make the development more sustainable through product innovation. There are expected 3 billion people 's lives should be improved a year by 2005. In order to achieve this goal, Philips develop the following two-dimensional approach: ecological dimension and social dimension.(Figure 2, Philips, 2013, p. 1)According to the Figure 2, Philips' products and solutions should directly support the curative or preventive sides of consumer's life. The products and solutions should also determine the influence on the social dimension. Meanwhile, people also need a healthy ecosystems to live a healthy life. The Green Product portfolio determines the contribution to lower the impact of the ecological dimension. Generally speaking, within this concept, Philips divide their new product into " well-being product" and " Green products". The " well-being" products are all consumer products and services that enable people to live healthier lives by providing them with the tools to make healthier choices: to prepare food; to care for their physical and mental health; to create a healthy home environment.(Figure 3, Philips, 2013, p. 2)As we can see from Figure 3, the Air fryer is belongs to " Food" for the " well-being" product. Then we can see that Philips made a very clear and efficient category for Air fryer. By doing so, it could be easier and quicker to find the problems for the innovation in the certain area. For example, it is easier for focusing in a small field than making effort to do every aspect.

3. 2 Step two

Identify a group of heavy product users or activity participants within that category. Air fryer is a "well-being" product. Therefore the heavy product users or activity participant should be people who care about health very much. (Figure 4, Philips, 2012, p10) As we can see from Figure 4, it is actually the information that about the global trends and challenges for market opportunities. However, we can see in the second part, "consumer lifestyle", the group of people is our heavy participants and respondents. They are consumers who focus on health and well-being; rising middle class in growth geographies; back to basics simple propositions; trusted brands combined with locally relevant portfolio. Philips Consumer Lifestyle Drachten has made intensive contact with end users to gain profound insight into the needs and wishes of consumers. Therefore, the staff can gather the primary problems for the participants. For the Air fryer case, the participants possibly express their concerns about the deep-fried food harm to health. The deep-fried food could lead to high calories, cardiovascular risk, diabetes risk (Traister, 2011). Moreover, they indicate the problems of diet. It's hard to keep fit if one takes in too much fat and oil. They may have already tried some ways to remove the fat or oil from food, but ends with bad taste.

3. 3 Step three

When we finish the previous two steps, we could do much more than just asking respondents to list their problems. In the Air fryer case, we can find out what respondents want to get from a new product. As we the potential problems mentioned in the previous step, the participants may want to use a

kitchen appliance that could maintain the food with " deep-fried" food, such as the crispy taste but less oil, even no oil at all. Therefore, those people who want a healthier life could still enjoy " deep-fried" food's delicious taste but with no added oil and fat. This appliance should be easy for them to clean. It should be simple to use and allow smart setting of time. They appliance should control the unwanted smell and vapor of food while cooking.

3. 4 Step four

Sort and rank the problems according to their severity or importance. Till now, Philips have not unveil their specific ways of sorting and ranking the problems. However, we can make assumptions based on the real Air fryer product's characters. The most eye-catching and obvious character of Air fryer is oil control. It is clearly ranked as the first and most important problem that need to be solved. For traditional cooking, it is not easy to control the oil and fat. For example, one must use a lot of oil to make crispy food. The second should be the convenience of the appliance. The consumers will not buy a very complex and costing small kitchen appliance even though it cost less oil. Even though they bought it, they may through it away when they find it very inconvenient. The third could be the taste of the food. Some participants may concern that if the oil and fat are decreased, the taste could change.

4. Conclusion

In the severe business competition, product innovation could be a promising direction for companies which want to maintain and improve their sales. In this essay, Phillips' Air Fryer is a good example of product innovation. As the

first oil free cooking appliance, it soon capture the attention from free press since it has been launched in 2010. Various product innovation theories could be used to evaluate Philip's Air fryer performance. Among all these theories, Problems Analysis could be a proper one. In this essay, the background information of Philips was introduced. We can see that Philips maintain a good tradition of product innovation. It has Consumer Lifestyle department to gather information and opportunity for future product innovation. The problem analysis method could be one way that Consumer Lifestyle department used to develop new products. The overall introduction of problem analysis and details of each steps haven given in the academic theory part. In the evaluation part, each steps have been given further explanation with the information related to Philips' Air Fryer. The success of applying problem procedure could been seen from the details in each steps. Generally speaking, the product innovation match each steps of problem analysis procedure. This is not only based on one sole product, but also the whole platform of Philips' innovation. Till now, Philips have not unveiled too much details about the innovation process of Air Fryer. Therefore, some assumptions have been made in performance to support the explanation.