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PRODUCT TRACKER
A Formalised Process of Bringing Product to Market

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ABSTRACT

The aim of the thesis is to go through the making of a formalised process of bringing product to the market. The process is called product tracker and it was conducted to an international mobile phone manufacturer's department in New Zealand. The company wishes to stay anonymous because of confidential reasons. In this thesis the company will be called TeVo New Zealand, which comes from the company's biggest customers, Telecom New Zealand and Vodafone New Zealand.

In this particular company product to market is a very complex issue that has significant impact on the company's business efficiency. TeVo New Zealand lacked some formalised process around this issue and I was asked to co-ordinate a solution to this problem. I made a process called product tracker to the company's Customer and Market Operations department. The product tracker will help the information flow within different teams at TeVo and also clarify the whole process of product to market. TeVo intends to use this process to drive improvement in their processes for product marketing, marketing, retail marketing and customer care.

The Customer and Market Operations department at TeVo works in cross-functional teams. In order to understand how the business works and fully benefit the product tracker, cross-functional teamwork is explained in the thesis. Moreover the background information of New Zealand's telecommunication industry is given before the making of the product tracker is explained. With this information this thesis should give an understanding of a mobile phone manufacturer's business in New Zealand, how a product tracker can be done, and especially how important a formalised process around bringing product to market is.

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1. Introduction

TeVo New Zealand operates in a complex telecommunications environment in New Zealand. The Customer and Market Operations (CMO) department of the company is responsible for sales, customer care, marketing and bringing product to market. Bringing product to market in particular is an extremely complex issue and one of the most important ones of the company. Therefore the issue has significant impact on the company's business efficiency, competitiveness and ultimately on the company's profitability.

The problem is that TeVo New Zealand lacks some formalised process around the issue of bringing product to market. The Customer and Market Operations department suffers from a lack of information flow and a lack of knowledge regarding the process of bringing product to market. The process involves several people of the department who all have their own responsibilities. Members of the department are then busy concentrating on their own responsibilities and do not concentrate enough on sharing their information with other members of the department. This then leads to confusion and lost of critical time as bringing product to market is ultimately a process of team work. As the process is very complex and involves several people of the department, inefficient information flow can, and probably will in long term, lead to serious problems. The question therefore is: how could one prepare a formalised process that could help the Customer and Market Operations department to better share information and bring product to market more efficiently?

To find an answer to the problem we need to understand the business environment TeVo New Zealand operates in. More importantly we also need to understand the whole process of bringing product to market as well as the structure of the Customer and Market Operations department. As the department operates as a cross-functional team, it is extremely important to understand how teams work in order to find a solution that would best fit the department.

After studying all these aspects it was clear that the Customer and Market Operations department needed a product tracker. People working at CMO have not known clearly other's responsibilities and there has been a lack of information flow.

The biggest goal of the product tracker is to help all the teams at CMO in everyday work. The purpose is that there would be one place where the most important information about coming products is stored. Everyone could go to this specific file and easily and quickly check the information they need. This would help communication between team members since you would not have to shout questions to other team members or wait them to come to the office or reply to your email. And you would not be disturbed with so many questions since everyone would know where to go for information. The file would also gather information from different people and instead of asking questions from many people you could just check the answers from one single file.

After everyone would know where to go for information and easily get it, they know where the new product is coming and when they have to do something regarding it. The product tracker helps team members plan their time since they know the point in the future when their actions are needed.

The product tracker also shows clearly everyone's pre-launch tasks and responsibilities to the other team members. After studying the file everyone should have a clear picture of others' contribution to the pre-launch process. From the product tracker everyone can also clearly see the links between different tasks and their relevance to each other. This helps the team members to see the whole pre-launch process as one and not just as many little parts.

The product tracker has many purposes. It helps the pre-launch process by making the process easier and speeding it up if the product tracker is being used effectively and consistently. It also helps team members in the team to get a clear picture of the whole process and their involvement in it.

2. Telecommunications Industry in New Zealand

2.1 History of New Zealand Telecommunication Industry

The New Zealand Post Office had a legal monopoly in the provision of public telecommunications services in New Zealand up until 1988. Over the period of 1987-1989 The New Zealand Government reformed the telecommunications regulatory environment in order to improve the industry's economic performance and increase consumer benefits by creating competitive, open entry telecommunications markets. (Ministry of Economic Development 2005.)

In 1987 the telecommunications element of the Post Office was separated from the Post Office's postal and banking arms. A new State-owned Enterprise called Telecom Corporation of New Zealand Ltd was formed. In 1989 all legal restrictions on telecommunications services market entry were removed. Telecom was privatised in 1990 and competition in telecommunications services developed quickly. Nowadays there are a considerable number of companies providing telecommunication services in New Zealand. (Ministry of Economic Development 2005.)

2.2 New Zealand Telecommunication Industry Today

The early deregulation of the New Zealand's telecommunications industry in 1989 has helped to make New Zealand telecommunications products and services more competitive internationally. As the market rapidly became one of the most open in the world, only New Zealand companies developing world-leading technology were able to survive and thrive. (New Zealand Trade and Enterprise 2005.)

In a country placed half a world away from the globe's major population centres and with rugged and mountainous geography, it is no wonder that communications is one of the country's strengths. Setting up telecommunications networks in New Zealand has acted as a natural research and development centre. (New Zealand Trade and Enterprise 2005.)

Being a small and isolated nation New Zealand is the world's ideal test bed for new technologies and applications. The country also has a unique range of cellular mobile networks systems (Global System for Mobile Communications (GSM), Code Division Multiple Access (CDMA), General Packet Radio Service (GPRS), Time Division Multiple Access (TDMA)), which together with the size of the country creates an excellent test environment for new software and hardware developments. This enables the industry to develop broad sets of capabilities in these areas. (The NZ HiGrowth Project Trust 2005.)

New Zealand's deregulated environment and population of early adopters allow for the creation of telecommunications infrastructure ahead of many other developed countries. Therefore the country is emerging as a global leader in the areas of location-based services, wireless security, wireless radio communications hardware, health solutions, mobile commerce and payment solutions and fixed wireless network solutions. (The NZ HiGrowth Project Trust 2005.)

According to New Zealand's Trade and Enterprise (2005), the key strengths of the New Zealand telecommunication industry include:

- development of wireless communications and mobile radio-based communications
- specialized, niche expertise
- a track record of innovation and finding solutions
- flexibility to customise solutions

- based in a country where rugged environment forced telecommunications development
- strong commitment to on-going R&D
- willingness to take on small contracts.

In addition to these strengths New Zealand has the highest per-capita spending on information and communication technology (ICT) in the world and industry growth has been driven by wireless technology. The country also has one of the highest Internet connection rates in the world on a per capita basis and over 80 percent of New Zealanders are estimated to currently use a mobile phone. (Struneski 2005.)

2.3 New Zealand Mobile Phone Industry

Although the penetration of mobile phones is high in New Zealand, the mobile telecommunications market has only two players. These are Telecom New Zealand and Vodafone New Zealand.

The main difference between these companies is the mobile network they are using. Telecom New Zealand has deployed a mobile network based on the Code Division Multiple Access (CDMA) standard. In late 2002 this technology exceeded 135 million subscribers worldwide. Nearly 18 percent of these subscribers were using the 3G version of CDMA, which is the first 3G technology to be commercially deployed. (The NZ HiGrowth Project Trust 2005.)

Vodafone New Zealand bases its mobile network to the Global System for Mobile Communications (GSM) standard. This technology has nearly 750 million global

subscribers and is also the network used in Finland. Vodafone NZ also has deployed Nokia's GPRS solution since mid-2000. (The NZ HiGrowth Project Trust 2005.)

2.3.1 Telecom New Zealand

Telecom is the leading supplier of telecommunications services in New Zealand. It has been privately owned since 1990 when it was purchased from the Government. About 22 percent of the company's shares are held by New Zealanders. (New Zealand's official statistics agency 2000.)

Telecom provides local, national and international telecommunications services including mobile telecommunication, data communications, directories, paging and mobile radio. (New Zealand's official statistics agency 2000.)

2.3.2 Vodafone New Zealand

Vodafone entered the mobile telecommunications market in 1998 after its purchase of BellSouth New Zealand. The company now provides mobile phone and data services and its network covers 97 percent of the New Zealand population. According Vodafone New Zealand's web page, the company has over 55 percent market share of the New Zealand mobile market. (Vodafone Group 2005; New Zealand's official statistics agency 2000)

2.4 Mobile Phone Manufacturer in New Zealand

The mobile phone industry in New Zealand differs from the one in Finland. In New Zealand there are two different technologies for mobile phones, which are GSM and CDMA, whereas only the GSM technology is used in Finland.

Another big difference is that there are only two operators in New Zealand. These are Vodafone New Zealand and Telecom New Zealand. Telecom uses CDMA technology while Vodafone uses GSM technology. This is really clear bipartition of mobile phone technologies and also mobile phone operators. This affects hugely the mobile phone manufacturer TeVo as a whole.

Telecom and Vodafone are understandably TeVo New Zealand's major customers. But because these two companies use different technologies, the phones TeVo New Zealand sells them have to be different. The operators are also each other's competitors, which puts the company into a difficult spot between its customers. To solve this problem the company's customer and market operations department is divided into two customer teams. This way the company can increase its focus internally on its customers and dedicate channel resources.

3. Customer Market Operations

Customer and Market Operations (CMO) department at TeVo New Zealand is responsible for sales, marketing and after sale services. This CMO department consists of a small amount of people. CMO currently has only ten members who mostly work in alignment with each other. The power structure at the CMO department is very horizontal.

The manager of the department is General/ Sales Manager and in his supervision there are Product Marketing Manager, National Partnership Manager, Care Manager, and two Account Managers. Under General/Sales Manager also work National Retail Manager, under who works National Program Manager and Retail Account Manager, and Marketing Manager, under who works Marketing Executive. The following chart shows the power structure at CMO department.

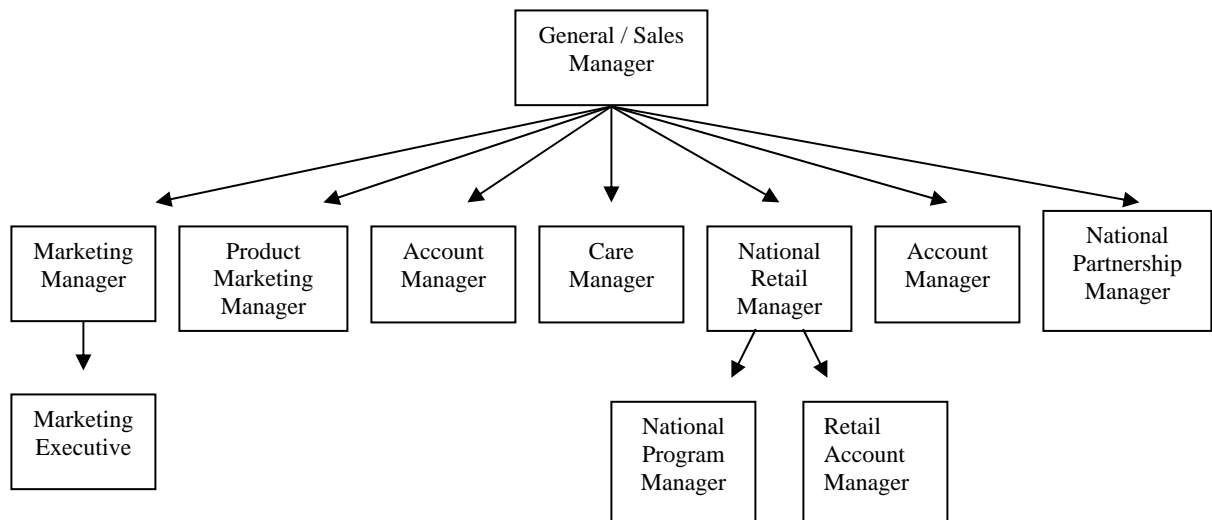


Figure 1: CMO organizational structure

The CMO department is divided into two customer teams, GSM customer team that works with Vodafone and CDMA customer team that works with Telecom. This is due to the fact

that the company is constantly in a difficult spot between the two operators and there has been feedback from the customers for a dedicated channel resource. The two customer teams makes it possible to align better with customers' businesses, reduce feeling of sharing customer secrets and increase customer contact points with areas of expertise. Furthermore channelling the customer teams increases focus internally on the customers, which helps to understand the customers' businesses better, have dedicated teams to develop dedicated solutions and have confidence to openly share and develop ideas and solutions.

In practice the customer teams work closely on all major channel initiatives and the teams are driven by the success of their respective channels. The account managers in both teams control information sharing in customer teams versus the total New Zealand CMO team. General Manager maintains focus across business and monitor team success and issues. Any major changes in the teams will be shared with the customers for agreement.

3.1 GSM Customer Team

GSM customer team consists of four people, account manager, product marketing manager, marketing manager and retail manager. Account manager manages the sales and customer relationship within broad product and business area and has direct responsibility for the GSM channel. Product marketing manager in the team manages product ranging and product roadmap for all GSM products in the New Zealand market and brings product to market through co-ordination of regional product marketing groups, as well as manages local operator approval process.

Marketing manager provides professional expertise to the marketing organization and contributes in the creation, development and implementation of marketing processes and solutions. Marketing manager also manages marketing relationship and content with Vodafone New Zealand. Retail manager drives the company's business initiatives through

retail channels with particular emphasis to manage the key dealer accounts within the GSM channel, and to develop joint business plans to meet the company's, Vodafone's and dealers' objectives.



Figure2: GSM Customer Team Structure

3.2 CDMA Customer Team

Like GSM customer team, the CDMA customer team consists of four people. These are Account Manager, Product Marketing Manager, Marketing Executive and Retail Account Manager. The Account Manager manages the sales and customer relationship within product and business area and has direct responsibility for the CDMA channel. Product marketing manager manages product ranging and product roadmap for all CDMA products in the New Zealand market and brings product to market through co-ordination of regional product marketing groups, as well as manages local operator approval process.

Marketing executive in the team supports the marketing function and Marketing Manager in operative marketing matters and manages marketing relationship and content with Telecom New Zealand. Retail Account Manager drives the company's business initiatives through retail channels with particular emphasis to manage the CDMA retail channel and mass merchandisers. Retail Account Manager develops joints business plans to meet the company, Telecom and dealers objectives.

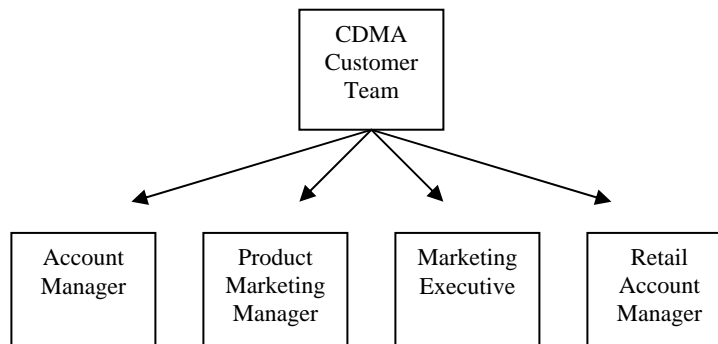


Figure3: CDMA Customer Team Structure

4. Current Situation and Problems

4.1 Current Situation

The CMO department at TeVo NZ consists of a small number of people. These people work as a team and are divided into two other teams. As there are two mobile phone technologies in New Zealand, GSM and CDMA, the people at TeVo make two teams called GSM Customer Team and CDMA Customer Team. Although both of the teams have a one big client and the clients are rivals, some of the people at TeVo work on both of the teams. For example Care Manager is taking care of the after sale services works on both of the teams.

The CMO department has weekly and monthly meetings. GSM and CDMA teams have regular meetings and they work with each other on a daily basis. The members of the teams co-operate with each other many times a day and the work environment is open and supportive. The members of the CMO department participate various training sessions now and then. There is also very little hierarchical structure since most of the roles are horizontally related.

The process of bringing product to market is very complex. The process involves several people that all have their own tasks and responsibilities. Many times these tasks are intertwined and someone's responsibilities may affect everyone else's responsibilities on the team. All the tasks and responsibilities are explained in the following chapters.

4.1.1 Product Marketing

Product Marketing is the first one to be in contact with new products after the upcoming products have been decided. The first step for Product Marketing is to have New Product

and Technology Introduction meeting and present the new phones for Vodafone on the GSM side and for Telecom on the CDMA side. These operators then also influence on the decision if a product is brought to the New Zealand market or not.

If the product is decided to bring to the market, customized software variant for New Zealand is created. Previously received prototypes are then prepared with the new variant before the prototypes can be sent to operators' type approval testing. After the testing has been done Product Marketing is able to say when the new product would be available. Type approval works as an accelerator to other parts of the product launch because it means that the operator has approved the product and it will be launched soon.

4.1.2 Care

As soon as Care knows what new products are coming to the market, service tools for these new models are ordered. This is important so that the new models can be upgraded with the latest software, and tested, and the latest software tested.

After a product has been type approved, Care notifies service centers and care line about the up-coming product and orders warranty units so that they are ready when the product is launched. Care also notifies service centers and care line about shipping dates as soon as this information is available so that they can prepare themselves for the launch of the new model.

4.1.3 Retail

After retail knows what models are coming to the market, the upcoming models are presented to the key retail partners who may make ranging suggestions. The retail partners may want to make additions to the range of new phone models if they feel like there is a

market for more phones or a particular phone model, or they may want to make deletions if they feel a particular model is not suitable for the New Zealand market. These suggestions are carefully thought of before final decisions about the model range are made.

Before a new model has been type approved Retail develops fact based selling stories for use at retail level and makes suggestions for placement in section. After a new model has been type approved, Retail determines which handsets will require demonstration handsets within stores and quantity by stores. Retail then organizes the demonstration handsets to specific stores. After type approval Retail also organizes joint marketing fund activity to generate demand for new phones at retail level. This is something that continues through the product lifecycle after launch. Retail also co-ordinates product training to be delivered through field force to retail and corporate sales staff.

When it is known when the new model is going to be available, and what the selling price of the model is, Retail determines the level focus the product will receive through the TeVo's rewards site. This site is an incentive program where sales staff at stores gets points for selling TeVo mobile phones and after they have enough points they are rewarded. The amount of points is determined by the selling value TeVo gives to it.

4.1.4 Marketing

In bringing product to market Marketing's responsibilities start with allocating budget. This starts early in the process after strategy planning and is confirmed about two months before the launch of the product.

The next step for Marketing is to order dummy phones to use in the retail level. These are non-working phones that are used in stores to show customers how the phone looks and feels. The ordering is done after it is known what models will be sold in the local market, what is the colour of the phone and other details, and when it will be launched.

Some new models receive more marketing than others. Those that receive more are called Above The Line products. The creative review for these products is done after the product has been type approved. All possible point of sale material is also ordered at this time.

After creative review and after the launch date are known, Marketing makes media recommendations for the product's marketing, books the desired media, and signs off the media schedule. Press release is also prepared and given at this point. Marketing may also identify other public relations activities or events regarding a specific product at any time of the product to market process.

4.1.5 Account Management

In the product to market process Account Management has an on going forecast for the product's pricing and sales. This is on going for the entire product to marketing process.

Account Management gives pricing for the new model after it has been type approved by the operator, which triggers activities in the other departments. Account Management also oversees all the orders of the product placed by the either an operator or a distributor.

4.2 Problems

The structure and the habits of the teams are textbook material. Everything looks great in theory and it would be hard to believe that these teams would have any problems with internal communication. But in practice, and despite all of the meetings, there are problems with the internal communication. Of course not all of the meetings are about pre-launch process, which explains some of the problems. But there are still issues that should be solved.

The CMO department at TeVo NZ has been suffering from a lack of information flow and a lack of knowledge regarding the pre-launch process. Although the department consists of only ten people, the communication between team members can be insufficient.

There has not been a place where the pre-launch information would have been stored. All the team members have their own files where they save information but it is almost impossible for other members of the team to find the information they are looking for from somebody else's files. When a team member requires information from other members he or she asks it directly from the knowing person or email him or her. This can then cause problems to the knowing party. Even if the person is in the office or is able to attend his emails, he is probably disturbed. He has to interrupt whatever he was doing and concentrate on the asking person. He might not even know the answer himself and he has to find it out from his files. All this wastes both of the parties' valuable time. The asking person is waiting for the answer before he can continue his work and the knowing person is wasting time by looking up the answer. It may also take him longer to continue his work since he was disturbed by the question. And even more time is wasted if the knowing person is not able to answer right away and the other person's work depends on the answer.

Without having a one place where to save critical information, the information might not be passed on at all. This kind of information leakage can cause problems. When the members of the team are not sharing their information efficiently, no one knows when they have to do their own responsibilities. This is especially true in a process like pre-launch process where the actions are linked to each other and in order to do your own responsibilities efficiently it is important to know whether other members have finished their tasks.

There is a lack of knowledge at the CMO department. The members of the team concentrate on their own tasks and responsibilities although all of them share a goal. This goal is the launching of a new product. The members know faintly other members' responsibilities regarding the pre-launch process but are unclear about the whole process.

Furthermore they fail to see how all the tasks in the pre-launch process are linked together and what the timings of these tasks are.

The CMO department at TeVo NZ has a lack of communication and a lack of knowledge about the pre-launch process. These both problems can lead to serious problems if they are not fixed. Especially the problems with information flow. A business operating in the Information and Communications Technology business sector cannot afford to have inefficient internal information flow.

5. Cross-functional Team at TeVo

As the CMO department at TeVo New Zealand consists of cross-functional teams, it is important to know what exactly a cross-functional team is. In order to find the best solution for the department's problems it is also important to know how these kind of teams work, what are their pitfalls and how they can perform the best.

5.1 Cross-functional teams

According to Wikipedia The Free Encyclopedia (2005) a cross-functional team is a group of people working towards a common goal and consists of people with different functional expertise. These people could come from finance, marketing, human resources departments and operations. Members of the team might also come from outside an organization, especially from suppliers, key customers or consultants. (Wikipedia The Free Encyclopedia 2005.)

In addition to that Managing Cross-functional Teams (1999) says that a cross-functional team works as a unit. The team members communicate frequently, cooperate and provide mutual support, coordinate activities and exploit the skills and capabilities of the team while considering the needs of individual members. (Managing Cross-functional Teams 1999, 2)

Cross-functional teams often function as self-directed teams. They do not react to specific directives but rather to broad objectives. Decision-making in a team may depend on consensus but it is more often being lead by a manager or a team leader. (Wikipedia The Free Encyclopedia 2005.)

There can be a variety of cross-functional teams. Teams can cover a variety of issues and subjects (e.g. customer service, research, product launch, product design, business strategy) under different periods and frequencies (one-time project or meeting together regularly). Moreover there can be different levels or degrees of complexity. For example there can be networks of linked cross-functional teams where each team works on a distinct aspect of a complex undertaking. Degrees of delegation and empowerment may vary in cross-functional teams. Some teams are only authorized to analyse problems and make recommendations while others are established as a self-managed work teams. (Managing Cross-functional Teams 1999, 2)

5.2 Guidelines to high-performing teams

Cross-functional teams are units of performance and in order to perform at the highest level there are some guidelines they should follow. First of all there should be a common and compelling purpose. This means that team members should be committed to achieving a shared vision. There should also be individual and mutual accountability so that individuals are accountable for individual contributions and the team shares mutual accountability for the team's collective performance. A common and agreed work approach is also important. The team discusses and decides how it will proceed and how each member will contribute to the team's efforts. (Managing Cross-functional Teams 1999, 3)

Other guidelines are trust, respect and openness and dedication to performance and implementation. Members of the team should share mutual respect and caring which leads to open and honest communication. Dedication to enhancing the organization's performance is also important. (Managing Cross-functional Teams 1999, 3)

But not all is in the hands of the team. Even if the team would meet all the guidelines it cannot perform at the highest level or at all if the organizational structures, systems and practices are not supportive. Cross-functional teams cannot be sustained in organizations

that are ‘unfriendly’ to the team concept or that have traditional bureaucratic cultures, systems, people management processes, and practices. (Managing Cross-functional Teams 1999, 3)

5.3 Objectives of cross-functional teams

In situations requiring the simultaneous application of multiple skills, experience, and judgment, cross-functional teams generally can get better results than a collection of individuals operating independently within limited job roles and responsibilities. Successful cross-functional teams achieve a balance of skills, accountability, and commitment. Organizations can have several objectives for creating cross-functional teams and some of these are explained in the following chapters. (Managing Cross-functional Teams 1999, 4)

Cross-functional teams can overcome the limitations of hierarchical structures. Teams can facilitate an understanding of processes that cross hierarchies, departments and regions. Teams can also identify and break down barriers and systemic constraints that obstruct organizational effectiveness. (Managing Cross-functional Teams 1999, 4)

Teams are able to provide a more thorough view of a whole organization and processes and thus improve the quality of decision-making. Cross-functional teams can also increase organizational flexibility by being quickly assembled, deployed, refocused and disbanded. (Managing Cross-functional Teams 1999, 4)

The most important and probably widely used objective for cross-functional teams is increasing organizational productivity. Because teams have clear goals, they are more productive than groups that have no clear performance objectives. This means that cross-functional teams are a powerful mechanism for making better use of the organization’s employees. (Managing Cross-functional Teams 1999, 4)

5.4 The competitive advantages of cross-functional teams

Effective cross-functional teams have many advantages. Although some of the advantages apply to other teams as well, these advantages are especially true when played out in the context of a cross-functional team. In his book *Cross-functional teams: working with allies, enemies, and other strangers* Glenn M. Parker (2003) identifies six important competitive advantages to organizations that successfully implement and manage them. These are speed, complexity, customer focus, creativity, organizational learning and single point of contact. (Parker 2003, 12)

5.4.1 Speed

Speed, in other words the ability to get things done faster, is now so important for business success that time-based management is a topic of critical importance to businesses in competitive markets. Cross-functional teams allow many pieces of a process to be done at the same time. The team approach eliminates many of the features of the serial process that added time and costs to the final product. In an isolated environment activities can slow down processes because they lead to errors and other factors that require time-consuming changes. Cross-functional teams are able to discover these problems at the front end or even catch them before they occur. (Parker 2003, 13-16.)

Teams speed up processes when they have a clear goal, include all the relevant functions, carry out many tasks simultaneously, and empower the team to act without checking every decision. They also need to involve all the key players from the very beginning of the process and enforce the discipline necessary to keep to a schedule in order to really reduce the time it takes to get things done. (Parker 2003, 13-16.)

5.4.2 Complexity

Cross-functional teams are in better position than a series of functional teams to solve complex business problems, because most of these problems go beyond disciplines or functions. Cross-functional teams provide the framework for putting together scientist and engineers with different backgrounds and diverse training to solve a complex business problem, design a new system, develop a new product, or reorganise the company for example. Bringing together people from different parts of the company with different skill sets, a variety of orientations, and training in diverse disciplines means that the outcomes will be more creative. (Parker 2003, 17-19.)

Keys to using cross-functional teams to solve complex problems include having a leader with creative vision, freedom from unnecessary restrictions, for example freedom to fail, a range of diverse opinion and openness on the part of the team members to new ideas. (Parker 2003, 17-19.)

5.4.3 Customer focus

The type of a team does not matter whether it is a product development team, sales team, or quality team. Every type of team has a customer. Therefore all cross-functional teams should have a customer focus. As the work process becomes more complex and as quality is defined as 'satisfying the customer', cross-functional teams become a necessity for achieving quality improvements. For more complex products and services, one person or one department cannot know enough to understand the total process, identify breakdown points, and suggest ways to reduce errors. This is where the usefulness of cross-functional teams lies. In fact many cross-functional teams are formed due the demands of customers for a more coordinated, efficient, and cost-effective team approach to doing business with them. (Parker 2003, 19-25.)

Using cross-functional teams to focus on the customer requires a clear understanding of who the team's customer is as well as involving the customer closely, either as a team member or with consistent communication. (Parker 2003, 19-25.)

5.4.4 Creativity

Cross-cultural teams provide the basis for a creative mix of people with different backgrounds, orientations, cultural values, and styles. This kind of environment is ideal for emerging of new ideas and innovations. Cross-functional teams represent the positive features of an informal organization by providing the opportunity for creative expression usually reserved for small entrepreneurial companies. Teams achieve this by being a venue for aligning innovation with an opportunity to use their heads and learn from each other. (Parker 2003, 26-28.)

In order to encourage creativity with cross-functional teams the culture should support informal problem solving, communication among the team members should be open, and the structure should be open across organizational lines. It also helps fostering creativity if risk taking is encouraged and rewarded, and product and service innovations are seen as critical to the organization's future. (Parker 2003, 26-28.)

5.4.5 Organizational learning

In today's business environment knowledge management is being seen more and more as an important management strategy. In cross-functional teams the learning of employees is often informal. Learning happens as a natural result of opportunities to interact with colleagues and strangers who have knowledge and skills to share. Team meetings with status reports and presentations are a source of development to cross-functional teams. In

addition, opportunities to participate in discussions and ask questions take place throughout the life of the team. (Parker 2003, 28-31.)

To take the full advantage of the learning opportunities provided by cross-functional teams there are few helpful things to take into account. It helps to provide training that breaks down the barriers between strangers, create an open environment, conduct technical training that demystifies the work of the various functions on the team, and also reward team members who share information and expertise and team members who are active learners. (Parker 2003, 28-31.)

5.4.6 Single point of contact

In the functional team structure it is often difficult to figure out where to go for information when working on a complex project. Functional team participants are usually more concerned about getting their share of work done that they are about seeing that the total project gets completed. In a cross-functional team these problems are absent. A cross-functional team becomes the single point of contact for all corporate functions involved with the project. For example, the manufacturing team member serves as the team's liaison with the manufacturing manager and manufacturing engineers assigned to the project. The team members are also able to answer questions regarding other team members' responsibilities and everyone knows where to go to look for an answer if they do not. Customers like the idea of the team as the single point of contact, which then serves the customer focus advantage explained in point 4.4.3. (Parker 2003, 31-36.)

It should be clearly communicated to stakeholders that the team or the teamleader is the point of contact, in order to take the full advantage of the cross-functional team as the single point of contact. The internal team communication should also be tight so that the leader has all the relevant information to carry out the contact role effectively. It is also

important to provide regular communication from the team to the key stakeholders about the progress of the team and related issues. (Parker 2003, 31-36.)

5.5 Why cross-functional teams can fail

Cross-functional teams can fail for numerous reasons. The most common reasons are explained in the following chapters.

Cross-functional teams may failure to establish clear project objectives. This might be caused by poor goal or issue definition in the beginning of the project, poor definition of roles of functional departments or underestimating project complexity. Another reason for a team to fail is failure to control costs, schedules, and resources. This can happen if the team has not anticipated issues that can ruin projects, or the team has not monitored the project processes. (Managing cross-functional teams 1999, 34.)

Ineffective communication networks between the team and the external world can be caused by failure to share important knowledge of the project or by not establishing, using and updating communication networks. If the team member roles and responsibilities are not clearly defined, or the team problems have not been anticipated and contingency plans developed to them, there can be a lack of coordination within the team. This can then cause the team to fail. (Managing cross-functional teams 1999, 34-35.)

Other common reasons for failure are failure to deal with intense pressures, conflicts, problems and issues, failure to develop a feedback system and inadequately trained team leaders and team members. Although there are many reasons why cross-functional teams can fail, even more than have been said here, many of the reasons can be prevented if the guidelines for cross-functional teams are followed. (Managing cross-functional teams 1999, 35.)

5.6 Cross-functional team at CMO

TeVo New Zealand constitutes of different teams. One of these teams is CMO team, which has ten members who are divided to two other teams, GSM and CDMA teams. These teams have not been formed as cross-functional teams but they naturally behave and act like ones.

After reading the definition of cross-functional teams, we can easily call CMO as a whole and also GSM and CDMA teams cross-functional teams. The groups have a commitment to a common purpose, which in this case is getting a new product launched, and they consist of people with different functional expertise. The group members co-operate, communicate frequently and provide mutual support.

The team members assist and support each other. Issues that arise are handled daily and the teams also have regular weekly and monthly meetings as well as extra meetings when they are needed. Communication will also improve when the teams start using the new product tracker spreadsheet. This will then be the single-point of information, which will help daily communication and also weekly meetings.

The most important goal of CMO teams is the launching of new products. New products are coming into New Zealand markets continuously and the pre-launch process of a product happens simultaneously for many different products. This means that the CMO teams are continuously working as cross-functional teams and work as self-managed work teams.

6. Product Tracker

The problems at CMO department at TeVo NZ really needed a solution. The group members were all aware of the problems but no one had time to think about a solution for it, or if they had a solution they did not have time to implement it. After studying the problems and the structure of the department, it was clear what the solution would be.

What the CMO department needed was a system where all relevant information of upcoming products would be stored. That way everyone could go to one place and get all the information they needed without being forced to rely on other team members passing the information on. They also needed a map showing the pre-launch process tasks with timings and how the tasks are connected to each other. This would help everyone to get a clear picture of the whole process and understand more other team members' responsibilities

6.1 Preparing the product tracker

Before the making of the product tracker could start, the gathering of information related to the pre-launch process was needed. All the tasks and responsibilities of the members of the CMO department were studied. Also the information on how their tasks connected to other members' tasks and what information they needed before they were able to do their own responsibilities was important. All the tasks and responsibilities were explained in chapter four called 'Current Situation'.

6.2 Making of the product tracker

The documentation was started after all the team members' tasks were understood and coordinated. A use of Microsoft Excel was chosen for this process since it was important that the process was shown as clearly as possible and Excel is ideal for showing complicated processes and simplifying them. It was also important to have different spreadsheets for different product families since there are differences in the process with GSM and CDMA models and even those that have a Vodafone Live! variant on them. Excel makes this possible while still keeping all the spreadsheets in a single place. Excel spreadsheets are also easy to populate which is important when one of the main problems is information flow.

The product tracker consists of three spreadsheets for all of the product families as can be seen from the appendix 2 where you can find the product tracker as a whole. First ones of the spreadsheets are called simply CDMA, GSM and VF Live. These show the order of the different tasks in the product to market process and the relations between different tasks.

The next spreadsheets are the ones with 'Timings' on them and show, as the names say, the timings of the tasks. The spreadsheet shows how long it takes to finish a single task approximately. The timing is in weeks. The tasks that do not have timings on them are either on-going tasks or simply take so little time that they do not make a difference in the timing. These spreadsheets show easily how long a product to market process approximately takes. And when you know which tasks have been finished, you can forecast how long it takes before a product is launched.

The third spreadsheets are called CDMA products, GSM products and Live! products. These are the ones that are meant for the team members to complete. Each new product has own space where critical information about the product is inserted. This should help with the information flow and is also the place where the most important information of a new model is stored.

All the spreadsheets of the product tracker were checked frequently with the team members and changes to them were made before the final version was ready.

7. Conclusion

After studying how cross-functional teams work and understanding the internal and external environment of TeVo New Zealand's CMO department, it became clear what was needed from the formalised process of bringing product to market. It had to be something that would show the different elements of bringing product to market and their correlation to each other. It would also have to show how long different stages take for making planning easier and most importantly it would have to have a part where critical information could be stored to solve the information flow problem the department has.

After these conclusions Microsoft Excel was chosen for the process of preparing a product tracker. With Excel feeding information to the document would be easy and the program would clearly show the different stages of the whole process of bringing product to market. Excel was also a program that fitted well with the company.

Of course there is a possibility that the product tracker will fail. It was said in the chapter '4.5 Why cross-functional teams can fail' that if the team fails to share important information the whole team could fail. The product tracker that was built for the CMO department at TeVo tries to prevent this from happening. But if the product tracker fails, the whole team can fail as well, or at least it makes sharing information more difficult.

There are many reasons why the product tracker can fail. The most obvious one is if the team members are not using the product tracker. If they are not using it, they are not sharing their information to others and also they are not receiving information efficiently. Therefore the purpose of the product tracker might get jeopardised even if one member of the team does not use the product tracker.

The product tracker can also fail if the team members do not know how to use the product tracker. They might not know the purpose of the tracker and therefore misunderstand its

importance and relevance to them. Moreover it is important that all the team members use the product tracker efficiently and take the most out of it. Educating the team members and explaining the purpose of the product tracker can fix most of these problems. This explaining is best to do before starting to use the work tool when all the possible problems can be avoided before they occur.

The information in the product tracker might be irrelevant or wrong or they might be something important missing, which makes the whole tracker useless. This can be avoided by carefully checking the product tracker with every team member before starting to use it.

The effectiveness and usefulness of the product tracker depends on the team members. They are the ones responsible to use it and make it as a helpful tool. And if they find something wrong with it or something important missing, they should fix the problem before the product tracker loses its effectiveness. The product tracker has been made to help the team members and in order to it reach its goal the team members should commit themselves to using the product tracker actively.

Luckily the whole CMO team has seen the importance of the product tracker and is willing and excited to use it. Expectations of the product tracker's impact and helpfulness are high in the teams. These expectations will most likely be fulfilled if the use of the product tracker is dedicated and constant.

The product tracker will help the teams at CMO to share information better and understand the whole process of bringing product to market and their involvement in it. If used constantly, the product tracker will make the process easier and faster and ultimately more effective. The CMO department at TeVo New Zealand sees these opportunities and is dedicated to put the product tracker in their formal plans for the year 2006. They believe the product tracker will improve in their processes for product marketing, marketing, retail marketing, and customer care.

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Appendix

Appendix 1 Abbreviations

Appendix 2 The product tracker

Abbreviations

CDMA – Code Division Multiple Access

CMO – Customer and Market Operations

GPRS – General Radio Packet Service

GSM – Global System for Mobile Communication

ICT – Information and Communication Technology

NZ – New Zealand

TDMA – Time Division Multiple Access

VF – Vodafone New Zealand

3G – Third generation mobile network

PRE-LAUNCH PROCESS: TASKS AND PRODUCT TRACKING	
Instructions:	
Tabs: CDMA, GSM, VF Live!	Shows the pre-launch tasks and the connections between different tasks
Tabs: Timings	Shows how long it takes to finish a specific task. Time is average and shown in weeks. Minimum time is 1 week although some tasks only take an hour to finish. Those tasks without time happen so quickly they are not worth mentioning eg. sending phones.
Tabs: Products	These are the tabs for you to complete.
	As soon as a new product is ranged, it should be added to the spreadsheet so that everyone will know the new products.
	Info of a specific product is inserted to related cells. The info can be explanations, dates or even just a tick to indicate the task has been done.

PRODUCT LIFE TRACKING / CDMA products				
	Product	Product	Product	Product
Product marketing				
Lab schedule				
Received protos, marketing material etc.				
Protos, marketing material etc. sent to Telecom				
TA testing				
Type Approved				
CR				
Factory verification				
When available				
Inbox contents (+tranceiver colour)				
Launch SW				
Other				
Care				
Service tools ordered				
Service centers and careline notified				
Warranty units ordered				
Service centers and careline notified about shipping dates				
Other				
Retail				
Product information to 1pagars				
Presentation to retail partners				
Demonstration handsets organized to stores				
JMF organization				
Product training through field force to sales staff				
Level of focus on IKON				

Fact based selling stories				
Suggestions for placement in section				
Other				
Marketing				
Dummies ordered				
Point of sale material organized				
Budget confirmed				
Media recommendation				
ATL creative review and development				
Media schedule signed off				
Other PR activity				
Images on product bank				
Press release				
Other				
Account management				
Pricing				
Ordered quantity				
Instore date				
Launch date				
Other				
LAUNCHED				

PRODUCT LIFE TRACKING / GSM products				
	Product	Product	Product	Product
Product marketing				
Variant created				
TA samples sent to Vodafone				
Vodafone testing started				
Type Approved				
When available				
Inbox contents (+tranceiver colour)				
Launch SW				
Other				
Care				
Service tools ordered				
Service centers and careline notified				
Warranty units ordered				
Service centers and careline notified about shipping dates				
Other				
Retail				
Product information to 1paggers				
Presentation to retail partners				
Demonstration handsets organized to stores				
JMF organization				
Product training through field force to sales staff				
Level of focus on IKON				
Fact based selling stories				
Suggestions for placement in section				
Other				

Marketing				
Dummies ordered				
Point of sale material organized				
Budget confirmed				
Media recommendation				
ATL creative review and development				
Media schedule signed off				
Other PR activity				
Images on product bank				
Press release				
Other				
Account management				
Pricing				
Ordered quantity				
Instore date				
Launch date				
Other				
LAUNCHED				

PRODUCT LIFE TRACKING / Live! products				
	Product	Product	Product	Product
Product marketing				
Variant created				
TA samples sent to Vodafone				
Vodafone testing started				
Type Approved				
When available				
Inbox contents (+tranceiver colour)				
Launch SW				
Other				
Care				
Service tools ordered				
Service centers and careline notified				
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Ordered quantity				
Instore date				
Launch date				
Other				
LAUNCHED				