

**Business Development and Marketing Strategy in Early-stage Technology**

**Start-up Businesses:**

**The Importance of Understanding the Customer**

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## **Business Development and Marketing Strategy in Early-stage Technology Start-up Businesses:**

### **The Importance of Understanding the Customer**

#### **Executive Summary:**

The author sets out to explore the role of a marketer and the importance of the customer in an early-stage technology start-up business when exploring the commercial options for a new technology or product. The author sets learning objectives around the use of an academic model to explore the development of the enterprise and the role of a marketer within a start-up team.

In order to reach these aims, the author compares three strategic marketing models and draws on insights from academic and practice-based literature to justify the use of Kotler and Armstrong's Marketing Process Model. The author then implements Kotler's model, detailing the practical elements of his role as the marketing and business development lead across three different projects, exploring the commercial potential for three different technologies/or products.

The author recommends the use of Kotler and Armstrong's Marketing Process Model for early-stage start-up business teams that are exploring commercial options for a new technology or a product. He recommends a customer-led approach to marketing within a technology start-up team. The author recognizes the importance of a marketer's role in establishing, maintaining and nurturing relationships with potential customers in order to drive and inform product development.

#### **Introduction:**

*Customers* comprise the heart of any business model (Osterwalder, Pigneur & Smith, 2010). For early-stage enterprises, understanding and defining the customer is central to the challenge of start-up survival. The thesis explores the importance of understanding this relationship through the development of a marketing strategy in an early-stage start-up business. The thesis discusses a range of marketing strategy models and recommends a model for start-up teams to follow when exploring commercial options for a new technology or product. The thesis draws on practical case studies to explore the discipline of marketing within this environment and consolidate this with academic and practice-based literature.

The case studies in this paper are developed from my experience in the Master of Advanced Technology Enterprise (MATE) programme at Victoria University of Wellington. The Master of Advanced Technology Enterprise is a one-year interdisciplinary programme that explores the

relationship between university research and commercial product development. It is a highly practical course that requires a hands-on approach in an entrepreneurial environment.

Teams of students were established to explore the commercial potential of different technologies with the aim of creating high-value enterprises. The course requires that each member of the team takes responsibility for one aspect of the business operation. The team which I became a member of consisted of three other members. This thesis refers to the team as the 'MATE team':

- Liam Hawker with a responsibility for operations
- Ish Jimale with a responsibility for customer development
- Oliver Townend with a responsibility for product development
- Ian Walsh with a responsibility for business development and marketing

With a background in communications and customer relations, I undertook the responsibility for business development and marketing. This involved undertaking primary market research, customer discovery activities, relationship building, developing a marketing strategy, brand development and pitching for investment. Additional detail is discussed regarding the extent and scope of my role throughout the thesis.

## **Objectives:**

The following section outlines the learning objectives of the thesis with relevance to the enterprise development, the evolution of my role and academic goals.

## **Enterprise Development:**

- To identify and understand the needs of a set of target customers to act as the basis for the development of a viable business model
- To explore the challenges of the assessing the commercial viability of early-stage research-led technology and/or product

## **Academic:**

- To explore the use of different marketing approaches and their application to the development of an early stage start-up business marketing strategy
- To recommend the use of a preferred marketing model for start-up teams that are in similar circumstances

### **Role/ Discipline Development:**

- Explore the influence of a potential customer in early stage marketing decisions
- To explore and build practical experience in the marketing discipline

### **Significance of Research:**

The Master of Advanced Technology Enterprise programme explores the many challenges of creating successful technology enterprises. The course is the first of its kind in New Zealand and is contributing to a new body of research. The practical nature of the course is reflected in this paper. The research should provide readers with an understanding of how the marketing discipline is a fundamental part of an early-stage company seeking to assess the commercial potential for a new technology or product. The research provides recommendations to start-up teams in similar circumstances through case study examples, as well as, an exploration of different marketing approaches. This research is particularly relevant to young generations of New Zealanders that are seeking to start their own companies, first-time entrepreneurs, marketing students, scientists and researchers, so they can understand the importance of the market, or the customers within it, when assessing the commercial viability of new products.

The support and investment into technology start-up companies, research and commercialization has grown significantly in New Zealand (and around the world) over the past five years, with the recognition that hi-tech companies provide a major boost to the economy (The Beehive, Office of Hon Steven Joyce, 2012). This research is well positioned to assist entrepreneurs and marketers with the development of a marketing strategy for early-stage technology or product commercial assessment.

### **Scope of Research and Definitions:**

The thesis draws on case studies over a one year time frame. The research therefore does not fully explore the challenges and implications of assessing commercial potential beyond this timeframe. However, this time restriction is representative of the time (or resource) restraints placed on start-up teams who are assessing whether a new product or technology has the potential to enter a new market.

The role I undertook in the new enterprise team was the 'Marketing and Business Development Lead'. With previous academic experience in the social sciences and practical work experience in public and customer relations roles, I applied my experience and knowledge toward learning and applying the discipline of marketing.

## Marketing definition:

“Marketing is not easy to define. No one has yet been able to formulate a clear, concise definition that finds universal acceptance” (Rewoldt, Scott & Warshaw, 1973, p. 3). However Hunt (1983, p. 9) defines the nature and scope of marketing through four sets of fundamental ‘expananda’ of marketing:

- The behaviours of buyers directed at consummating exchanges
- The behaviours of sellers directed at consummating exchanges
- The institutional framework directed at consummating and/or facilitating exchanges
- The consequences on society of the behaviours of buyers, the behaviour of sellers, and the institutional framework directed at consummating and/or facilitating exchanges.

With these factors in mind, this thesis adopts the American Marketing Association approved definition of marketing:

*Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large* (American Marketing Association, 2013).

The activity of creating and communicating offers to customers is something I have had a lot of practical work experience in. I have also had experience with communication to different groups of people, whether it be - clients, partner organisations, or the wider public. This motivated a decision to explore and apply the academic and practical discipline of marketing within the team. I planned to develop and enhance my expertise over the course of the year.

## Definition of Role:

As the Marketing and Business Development Lead in the team, I had the responsibility to co-ordinate the team’s efforts in identifying and qualifying new opportunities, different markets, build sustainable relationships with potential customers, and develop a marketing strategy, with the overall aim of understanding customer needs in the market to inform product development. The team sought to create a sustainable, viable business model by matching the market requirements as identified by potential customers to our product or product features. My role within the team was to ensure that the market feedback we received informed the product development so to address a profitable need. Throughout the paper, I will draw on my own experiences in this role to summarize the development and evolution of a start-up enterprise.

## Description of Methodology/ Academic Approach:

In order to assess the commercial viability of a new technology or product, as the marketing lead in the team, I set out to identify a model or approach to use as a guideline to construct an appropriate marketing strategy.

The thesis critically analyses three strategic marketing approaches and justifies the most appropriate model for use by a marketing team within an early stage start-up business when introducing a new product or technology into a new market. The thesis documents the application of the most appropriate model to the various projects that the team assessed during the course of the year. The three models were selected after broad research into various approaches in new product, innovation and marketing strategy. The three models are similar in their analysis of implementing a strategy for marketing new ideas or business propositions.

This thesis considers the following traditional marketing approaches and identifies the most appropriate approach for new technology start up business:

1. Kotler and Armstrong's Marketing Process Model
2. Rogers's Diffusion of Innovations
3. Ansoff's Matrix Model

## Kotler and Armstrong's Model of the Marketing Process:

Kotler and Armstrong outline five steps in building an effective marketing strategy. The first four steps are focused on creating value *for* customers and the final step is focused on capturing value *from* customers.

Create value *for* customers and build customer relationships

1. Understand the marketplace and customer needs and wants
2. Design a customer-driven marketing strategy
3. Construct a marketing program that delivers superior value
4. Build profitable relationships and create customer delight

Capture value *from* customers in return

5. Capture value from customers to create profits and customer quality

Kotler explains that through the first four steps, a company "gains a full understanding of the marketplace by researching customer needs and managing marketing information" (Kotler & Armstrong, 2006, p. 29). Seybold (2001) echoes this opinion with his recommendation that

companies should build a detailed understanding of common customer scenarios, he believes that a company can find creative ways to expand its reach into the lives of buyers by understanding customers and fulfilling their supplementary needs. A customer focused approach is used through the various steps of Kotler's model. Kotler believes the most important part of the marketing process involves "building value-laden, profitable relationships with target customers" (Kotler & Armstrong, 2006, p. 29). Other authors confirm this view with the opinion that maintaining long-term profitable customer relationships plays a significant role in customer acquisition and retention decisions (Stahl, Matzler, & Hinterhuber, 2003). Blocker, Flint, Myers and Slater (2011) state that "proactive customer orientation" is the most consistent driver of customer value. They find that the 'proactive dimension' within market orientation provides marketers with insights of the customer process. Further to these insights, Flint, Blocker & Boutin (2011) find that customer value anticipation is a strong driver of satisfaction and loyalty, with satisfaction acting as a mediator for loyalty. Kotler and Armstrong deliver a framework for companies that seek a "customer-driven marketing strategy for creating a competitive advantage in the marketplace".

### **Everett Rogers Diffusion of Innovations:**

This model attempts to explain how innovations (new technologies, products, ideas or behaviours) are taken up by an audience, or the population as a whole. Rogers (2003, p. 36) explains that the "main elements in the diffusion of new ideas are: an innovation that is communicated through certain channels over time among the members of a social system".

Rogers (2003, p. 16) discusses and defines five characteristics, as perceived by individuals that will determine the success of an innovation:

1. Relative advantage – is the degree to which an innovation is perceived as better than the idea it supersedes.
2. Compatibility – is the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of the potential adopter.
3. Complexity – is the degree to which an innovation is perceived as difficult to understand and use.
4. Trialability – is the degree to which an innovation may be experimented with on a limited basis.
5. Observability – is the degree to which the results of an innovation are visible to others.

With the recognition that the internet has fundamentally changed the structure of marketing channels, some authors have explored the "relative advantage of electronic channels" (Choudhury &

Karahanna, 2008). They conclude that the relative advantage of electronic channels, and the influence of each dimension of relative advantage on the adoption of electronic channels, will vary across the different stages of the purchase process. Other authors have created a model to examine the relationship between user perceptions during innovation adoption as set out by Rogers (Templeton & Byrd, 2003).

A key principle of Diffusion of Innovations is “reinvention” (Rogers, 2003, p. 17). The success of the innovation is dependent on how well it evolves to meet the needs of more risk-adverse individuals in the population. In this model, the focus is on the innovation or product. It is not the customer who changes but the innovations themselves. Rogers does however, segment individuals or the marketplace based on their propensity to adopt a specific innovation rather than segmenting the market on customer needs. Rogers categorizes individuals on the basis of innovativeness (p. 23):

1. Innovators – the first to adopt an innovation
2. Early adopters – once the benefits become apparent, this category are the second fastest group to adopt an innovation
3. Early majority – this category adopt an innovation after a varied degree of time once it has reached a wider audience
4. Late majority – this category tend to be more conservative and adopt an innovation later than the wider population
5. Laggards – the last to adopt an innovation who are risk-adverse

Although this model does emphasize the importance of understanding the different user groups in the population, it does little to encourage uncovering specific customer needs that an innovation could satisfy. The model encourages the continuous reinvention of an innovation or product that could eventually match the requirements of a paying customer segment. Many authors have also explored Roger’s model finding discrepancies. One group of authors found considerable differences between adopters and nonadopters on many measures (Labay & Kinnear, 1981). Vishwanath and Goldhaber (2003) also found that media use and change agent contacts significantly influence perceptions of complexity of the innovation as age, income and occupation are socio-demographic variables that indirectly influenced adoption intention.

### **Ansoff’s Matrix Model:**

This strategic marketing model can be used for business planning when applied to the development of new products or services or “tapping in” to new markets. The matrix helps companies define two key factors for their marketing strategies – what is sold (product) and who it is sold to (market).



Ansoff (1957) suggests four different types of product-market strategies for a company to consider with regard to its marketing objectives (p. 114):

1. Market penetration: “is an effort to increase company sales without departing from an original product-market strategy. The company seeks to improve business performance either by increasing the volume of sales to its present customers or by finding new customers for present products”.
2. Market development: “is a strategy in which the company attempts to adapt its present product line to new missions”.
3. A product development strategy: “retains the present mission and develops products that have new and different characteristics such as will improve the performance of the mission”.
4. Diversification: “calls for a simultaneous departure from the present product line and the present market structure”.

Each of the strategies in this matrix focuses on future business growth. Chen, Reilly, and Lynn (2012) support Ansoff’s model of developing a strategy for new product development. They conclude that new product development speed has become increasingly important for managing innovation in fast-changing business environments.

Ansoff pays particular attention to the fourth strategy of “diversification” and defines the objectives of diversification (Ansoff, 1957, p. 118):

1. Vertical diversification – synonymous with integrating the supply chain or amalgamating distribution channels.
2. Horizontal diversification – can be described as expanding a product line or acquiring related companies.
3. Lateral diversification – can be described as moving into new markets or as Ansoff states “it is an announcement of the company’s intent to range far afield from its present market structure”.

This model focuses on marketing growth strategies for more established companies to undertake and may not necessarily be applicable to early-stage start-up companies. Ansoff’s promotion of diversification is an innovative and disruptive strategy to enter new markets with new products, a strategy that underpins the purpose of a start-up company. However, Ansoff’s diversification approach assumes that the company is already established and is looking for revenue growth opportunities elsewhere. The model also assumes a focus on the ‘product’ rather than the

'customer'. The different strategies suggested by Ansoff encourage a company to create new products without discovering whether there is a need in the marketplace. This could well be assumed, however, it does not actively encourage a customer-led approach.

### **Justification: Kotler and Armstrong's Marketing Process Model**

Having narrowed the potential approaches to three, I recommended to the MATE team that we undertake the broad framework set out by Kotler and Armstrong as a way to approach the year. As the business development and marketing lead in the team, I advised the team that this would be the best approach in terms of creating a customer-focused marketing strategy.

Kotler's marketing process model is broad and flexible in its approach. It allows for the inclusion of Ansoff's and Rogers's models. The theme that ties these models together is their focus on finding innovative ways to formulate a new business proposition or implement change. Rogers's diffusion of innovations fits within the first three steps of Kotler's model with the communication of a new product or technology to customers in the marketplace. Ansoff's model fits within the last step of Kotler's model where a relationship with the customer is already established and the priority of a business changes to capturing further value from that customer. Kotler's flexible approach, guided by its core principles would allow for the adaptation and experimentation of different methodologies and courses of action within it. As an early-stage start-up team, Kotler's flexible approach would satisfy our course outcomes and individual learning's.

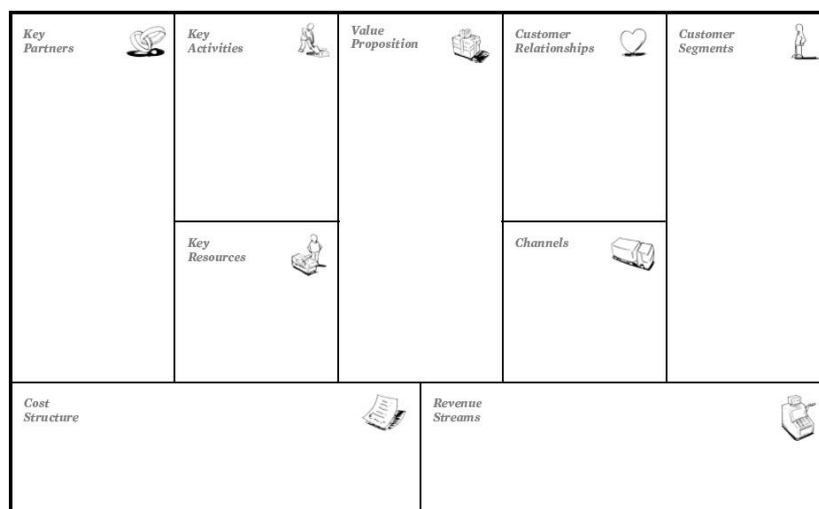
Kotler's model takes a "customer-led" approach, emphasizing the importance of understanding customer needs, whereas, Rogers model takes a more "product-led" approach. Rogers focus is on the innovation and formulation of the product and does not necessarily encourage a participatory dialogue with the customer to understand why iterations of the product are needed. Other authors have cited the importance of taking a primarily customer focused approach. Kumar, Jones, Venkatesan and Leone (2011) gathered data from the responses of repeatedly surveyed top managers at 261 companies regarding their firm's market orientation. They concluded that the sustained advantage in business performance from having a market orientation is greater for the firms that are early to develop a market orientation. The MATE team understands that the earlier we adopt a market-led approach, the more competitive we could be later.

Ansoff's model takes a "business growth" approach that focuses on strategies to facilitate growth, which are fundamental in the start-up of a new business. However Ansoff's model may not be directly applicable to our team's very early stage of formation. At this stage, the team seeks to explore markets and assess potential rather than implement a strategy to increase revenue. The team recognises the importance of Ansoff's model at a later stage.

In order to assess the commercial viability of a new product or technology, the MATE team needed to identify, qualify and quantify opportunities in different markets and build upon these findings to form the basis of a start-up company. With this in mind, the team identified the importance of taking a 'customer-centric' approach. That is, an approach where customer 'needs, wants and demands' are at the centre of the assessment criteria and decision making process. Kotler's model allows for a broad, customer focused approach which allows us to build a business proposition around customer needs, particularly in the first step of the model. The following steps of the model are built upon on a foundation of a solid understanding of the customer. The market research allows us to build a customer-driven marketing strategy for the creation of a new start-up company that will offer value to those customers.

### Other Academic sources/ practice-based material:

Further to Kotler and Armstrong's model, the thesis considered additional academic and practice-based literature and concepts from start-up business thought-leaders. The paper drew on the team's practical use of the 'business model canvas' using the 'lean start-up' methodology (Osterwalder, Pigneur & Smith, 2010, p. 12).



**Figure 1: The Business Model Canvas**

The team extensively used the 'business model canvas' to assess the current state of a business opportunity. It is principally designed to provide a high-level business plan or model to be displayed on one page, so that all of the core business activities can be assessed and adjusted accordingly. This is particularly useful for an early-stage start-up business, as the core activities of the business are constantly changing as new information is learned. We used the 'canvas' by writing down our

assumptions of what we expected to be the case and then tested those assumptions by asking potential customers. The feedback we received from customers informed model adaption.

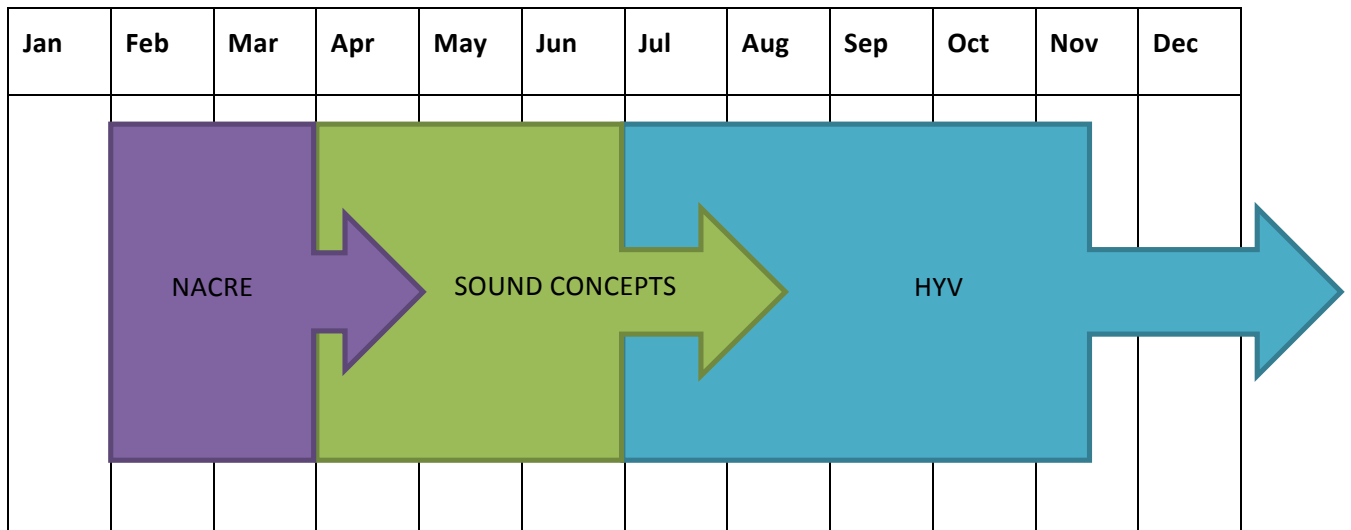
Osterwalder, Pigneur and Smith (2010, p. 14) defines a business model as “the rationale of how an organisation creates, delivers and captures value”. In developing a marketing strategy, *creating* and *capturing* value from the customer is echoed in Kotler’s marketing process model. Osterwalder et al. outlines nine core business activities or “building blocks” that need to function in order to create a viable business model (pp. 16-44):

1. *Customer Segments*: defines the different groups of people or organisations an enterprise aims to reach and serve.
2. *Value Propositions*: describes the bundle of products and services that create value for a specific Customer Segment.
3. *Channels*: describes how a company communicates with and reaches its Customer Segments to deliver a Value Proposition.
4. *Customer Relationships*: describes the types of relationships a company establishes with specific Customer Segments.
5. *Revenue Streams*: represents the money a company generates from each Customer Segment.
6. *Key Resources*: describes the most important assets required to make a business model work.
7. *Key Activities*: describes the most important things a company must do to make its business model work.
8. *Key Partnerships*: describes the network of suppliers and partners that make the business model work.
9. *Cost Structure*: describes all costs incurred to operate a business model.

A business model canvas was completed for each case study. The core components of the canvas we identified during the year were the ‘value proposition’ and understanding the ‘customer segment’.

## Application and Implementation

Figure 2: Timeline of the year



### Overview of the year:

The timeline above displays the three projects that were assessed for commercial viability by our team over the course of the year and the time it took to investigate them. The three named boxes also represent the case studies that I will draw from in this paper. At the beginning of the year, the MATE team was created, combining skills in marketing, project management, industrial design and business operations. The team first assessed the commercial viability of a developing technology we named 'Nacre'. After extensive market research we returned to the research team (or the founders of the technology/ product) with a collection of market requirements that would need to be met in order for customers to consider purchasing an eventual product. The team were then given the opportunity to focus on a new project called 'Sound Concepts'. We assessed the commercial potential for a series of acoustically beneficial products in different markets. Due to a number of limiting factors, the team decided to move away from this project and use the market research we had acquired over the course of the year, to found our own project named 'HYV'.

### Overview of the three projects:

Nacre – Dr Kate McGrath and her team from the School of Chemical and Physical Sciences developed a composite material based on synthetic nacre (a material found in shells), which closely matches the characteristics of bone. Initial tests indicated that this material integrates well with native human bone, significantly better than the metallic and ceramic implants currently used. The material has the potential for application in veterinary and human orthopaedics. The overall aim of the technology is to reduce rejection rates, enhance implant strength and durability and facilitate the growth of healthy hard tissue in close proximity to an implant.

Sound Concepts – Dr Natasha Perkins from the School of Design has developed a series of products designed to reduce the medical, social and language issues associated with poor acoustic treatments in interior environments. The products were aimed for use in school classrooms to reduce sound reverberation.

HYV – the MATE team founded this project based on the extensive market research it had carried out during the year. HYV is a system of lightweight customisable panels that can be easily configured to create meeting rooms, breakout spaces and multi-functional partitions that encourage collaboration, creativity and adaptability. The product was aimed for use in commercial open plan offices.

### Kotler and Armstrong's Model of the Marketing Process:

#### Stage 1: Understand the marketplace and customer needs and wants

Kotler and Armstrong's first part of the marketing process is the most significant in the context of starting a new enterprise. It is fundamentally about understanding the customer before investing time and resource into building a product. In order to have an effective marketing strategy, Kotler advises marketers to understand the customers' "needs, wants and demands" (Kotler & Armstrong, 2006, p. 6). This is echoed by numerous academics (Seybold, 2001; Stahl, Matzler, & Hinterhuber, 2003; Blocker, Flint, Myers & Slater, 2011; Flint, Blocker & Boutin, 2011). The longitudinal study already referenced in this thesis, revealed that firms with a market focus gain more in sales and profit than firms that are late in developing a market orientation (Kumar, Jones, Venkatesan & Leone, 2011).

Blank (2007), a technology entrepreneur and prominent Silicon Valley academic describes this process as "customer discovery". He outlines the goal of customer discovery as "turning the founders' initial hypotheses about their market and customers into facts" (p. 33). Blank divides the customer discovery process into four stages:

- Phase one: State Hypotheses – these hypotheses are the assumptions about your product, customers, pricing, demand, market and competition. These assumptions can be filled in on the business model canvas as seen previously.
- Phase two: Test Problem Hypotheses –qualify the assumptions by testing them in front of potential customers. The goal is to understand the customer and their problems, and while doing so, get a deep understanding of their business, their workflow, their organisation and their product needs.

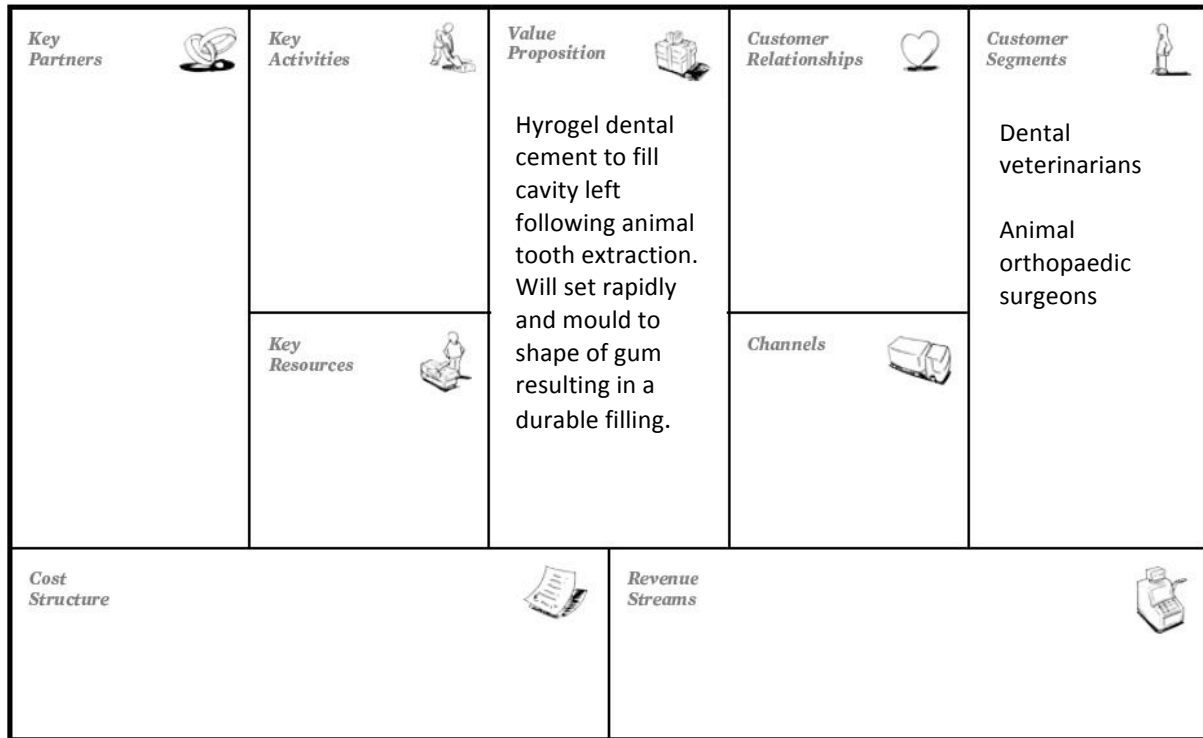
- Phase three: Test Product Concept – the first round of customer feedback then informs the product development team to recreate the product concepts. The aim then becomes to take the revised product concept and test its features in front of the customer.
- Phase four: Verify – at this point, a clear understanding of the customer’s problem is required. As well as the knowledge that the customer will pay for the product and that the resulting revenue will result in a profitable business model.

Blank’s four phases of customer discovery were used by the MATE team in tandem with Osterwalder’s Business Model Canvas. The canvas was used as a tool to carry out the customer discovery process. The end goal is to attain a repeatable business model formed from a full understanding of the customer.

Aulet (2013), the managing director of the Martin Trust Centre for MIT Entrepreneurship, states that entrepreneur’s gain the “vast majority of information from direct interaction with real potential customers about their situations, pain points, opportunities, and market information” (p. 32). This is echoed by Adams (2010) of the University of Texas, who advises entrepreneur’s that “primary market research is your number one tool” (p. 99). He states that primary market research provides a “competitive and propriety offering, one that arises from a unique and differentiated approach to the market” (p. 100). Adams describes different ways of performing market research from “face-to-face interviews” to “phone and internet surveys” (p.100).

During the course of the year, the MATE team undertook extensive primary market research for all three projects. The following section will illuminate how the team practically explored different markets to assess the projects’ commercial viability.

*Project 1: 'Nacre'*



**Figure 3: 'Nacre' Business Model Canvas (first application – Hydrogel Dental Cement for use in the Veterinary Dental Market)**

Our team first formulated the hypothesis that “there is a need for a product in the veterinary market that reduces infection following tooth extraction”. We sought to test that hypothesis with our assumption of the target customer – veterinarians. Our value proposition assumption was that we could provide a dental cement that is easy-to-use, cost-effective and bio-compatible which would benefit the overall treatment to an animal when extracting teeth. This product was to act as a “proof of concept” to the target market that the material was bio-compatible and had regeneration qualities. If these elements could be proven and the customer had a need for such a product, we could then aim the material for use in humans.

After filling in the relevant sections of the business model canvas, the team sought to qualify our hypotheses of a potential product and customer segment by moving into phase two of Blank’s customer discovery process. As the marketing lead, I guided the team in carrying out primary market research, targeting vets domestically and internationally.

Our research primarily consisted of phone surveys with vets around the country to get a better understanding of their needs and the problem. Adams (2010) explains some of the benefits of carrying out phone based research. These include the ability to make good notes during the



conversation, their efficiency, the fact that interviewees will be more forthcoming due to the lack of face-to-face contact and they can be used as an early indicator of sales. On the phone, Adams advises to “engage in direct interviews to understand and articulate the market pain and competitive offerings” (p. 127). During our phone interviews we also took on Adam’s advice in our quest to find a market pain point or customer need. Adams advises “never discuss or mention your company, its product, or any of its features when you are in this phase of interviewing” (p. 115). The reason for this is that it allows the customer to vocalize any pain points they have in their industry without restricting their thinking.

We developed a series of broad questions to ask vets in order to understand the veterinary industry better. Examples of potential early-stage questions included:

- Who do you buy your surgical products from?
- What are the 3 things you look for when deciding to purchase a new medical device?
- Do you see any room for improvement in the treatment of animals in regards to dental health?
- How frequently do you deal with dentistry issues in animals?

We also recognised the importance of gathering demographic information to build a profile of a target customer. Adams (2010, p. 118) states that gathering fundamental demographics is useful “to see if there are corresponding signs of usage patterns and preferences”. Questions about age, gender and location were implicit through the conversation. However, examples of more detailed demographic questions include:

- How long have you been a vet?
- Do you have a speciality?
- What types of animals do you work with the most?

After approximately 50 conversations and analysis of the data, the team realised that veterinary dentistry may not be a viable market. We came to understand that a dental cement or filler for small animals was not needed. Most vets simply let the void heal rather than filling the void. Apparently, filling the void led to infection and prevented healing. See Table 1 for an example of some of the feedback we received.

**Table 1: Market Feedback for Nacre (New Zealand)**

<p>Potential Customer 1 (Companion Animal Veterinarian)</p> <p><i>"If the socket is healthy, it will heal fine on its own. If it's diseased and infected you definitely don't want to put anything in there that might trap infection and prevent healing."</i></p>
<p>Potential Customer 2 (Veterinarian – generalist)</p> <p><i>"Dentistry is the second most common issue I deal with, after obesity. I probably have about 100 cases per year of which up to 20% require treatment under anesthetic. Some cats require the removal of all teeth due to osteoclastic lesions. I haven't noticed any difference in outcomes when not using a filler, in the vast majority of cases there aren't complications with an extraction and the site heals amazingly well with no treatment". I haven't ever had to refer a patient on to a specialist for dental treatment."</i></p>
<p>Potential Customer 3 (Veterinarian with a special interest in dentistry)</p> <p><i>"I use Consil to rebuild bone that has been lost in severe cases of periodontal disease to rebuild the bone that has been lost, although this isn't done very often. Occasionally I will insert a gortex barrier with an anti-bacterial agent. An infected socket can be filled with a slow release antibiotic such as doxycycline pericuteal gel, but as New Zealand and Australia are small markets we don't have access to the same products as other countries, sometimes we have to make them or have them made for us "</i></p>

Having understood that the need for such a dental cement product is limited, we extended the potential use for the product to include orthopaedics. With this in mind, one of our team (Oliver) flew to Auckland to attend the WSAVA (World Small Animal Veterinary Association) Annual Congress. His attendance was to gain insight into the global veterinary industry rather than just domestically. We had an interest in questioning vets who specialise or have an interest in, dentistry and orthopaedics. Adams (2010, p. 102) describes face-to-face interviews or conversations as the "gold standard of market validation" as you can gain some great insights from the customer through personal interaction and reading body language. Oliver spoke to a range of specialist vets from around the world at the conference.

Since the MATE team had a good understanding of the market from our previous research, we now shared with the vets what our proposed product was, in order to get some more direct feedback.

Examples of some of the questions asked at the conference and to vets domestically:

- Would you consider using such a device?
- What do you currently use to treat this issue? (bone fractures)
- On a scale of 1-10, how would you rate your satisfaction with this device?

See Table 2 for some of the feedback we received from the WSAVA.

**Table 2: Market Feedback for Nacre (International)**

<p>Potential Customer 4 – (Veterinary Dental Specialist, USA)  <i>“Ideally if something was osteoinductive it would be [useful] for GTR (Guided Tissue Regeneration) and for fracture management. Where everyone who makes the products wants it to be used is in extractions, I do not use much there.”</i></p>
<p>Potential Customer 5 – (Veterinary Specialist and Lecturer, Australia)  <i>“Your product would have to be macro and micro porous to allow fibroblasts, then blood vessels and then osteoblasts to grow amongst the scaffold. The product would need to be supportive of these tissues and not collapse so a lattice structure similar to hydroxyapatite would be good. The product should be biocompatible, and fully resorb approx 6-9 months after placement when new woven bone has fully formed and trabecular bone is well under way. The product should ideally support the bony ridge both in width and height.”</i></p>
<p>Potential Customer 6 –(Companion Animal Veterinarian and Dental Specialist, Poland)  <i>“Applications [of a gel based bone augmentation product]:</i>  - regenerative medicine in periodontal disease treatment,  - alveolar augmentation after extractions,  - augmentation of bone defects after injuries,  - oncologic surgeries and other situations requiring removing a part of maxillary or mandibular bones.”</p>

Having gathered primary market feedback we also conducted secondary market research to assess the potential size of the ‘total addressable market’ (TAM) and to examine future trends. Aulet explains that calculating the TAM for a first market is based on the total “amount of annual revenue, expressed in dollars per year, your business would earn if you achieved one hundred percent market share in that market” (Aulet, 2013, p. 59). Aulet (p.59) goes on to explain that prospective start-up companies should look for “a market that is big enough to allow it to get critical mass, develop key capabilities, and get to cash-flow positive in the market”. Our team assessed the veterinary bone grafting market to be worth \$1.9 Billion USD. By combining the primary and secondary data together, the team had a much better understanding of the customer and the potential need for such a product. The team made the following conclusions:

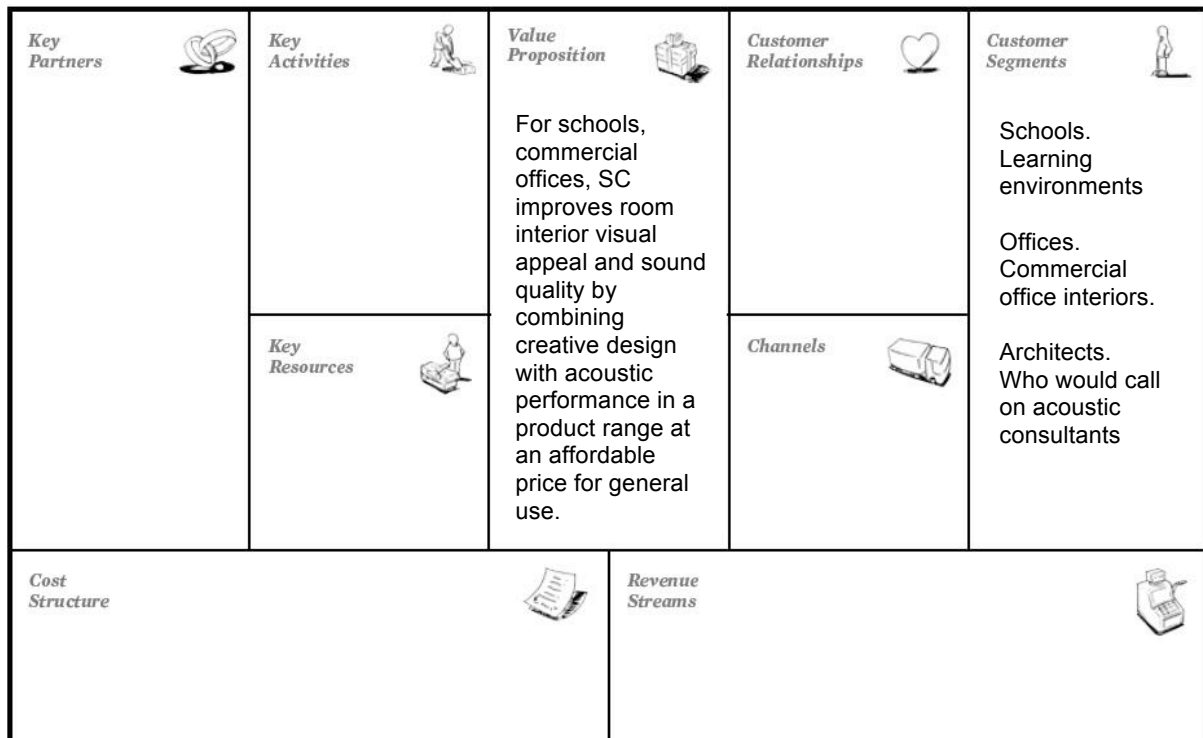
- That treatment of dental conditions requiring either tooth extraction or bone augmentation within the livestock market is very rare and there is no market for a void/socket filler in this market
- The treatment of dental conditions within the companion pet market is a developing market that is expected to see some future growth.
- Generalist veterinarians, who perform the majority of dental work on companion pets, rarely use a socket filler or bone grafting material during dental surgery as extraction sites, in the vast majority of cases, heal acceptably without the use of any specialized materials, and

in some cases the introduction of a foreign body would exacerbate the problem for the animal. Bone loss following tooth extraction is not an issue in animals as they do not receive cosmetic tooth implants.

- Specialist veterinary dentists, of which there are relatively few, recognize that a material specifically designed to fill tooth extraction sites could work if it had the necessary properties and would have some use, however their experience suggests that cases in which this material would be used are rare.
- The synthetic bone grafting materials available for veterinary practice in general have been developed primarily for human use in the first instance. The market for synthetic bone grafting materials is large and there is a lot of competition.
- The market for synthetic bone grafting materials is therefore fairly limited in the veterinary market.

These conclusions were passed back to the Dr Kate McGrath and her research team so that they could choose to refocus the development of the material to make it commercially viable in the future. The MATE team had gathered a collection of market requirements for the researchers to work towards. Due to the timespan of the course, the team felt that we could not offer any more value to the project, as we were unable to continue the relationships we had formed with potential customers until clinical trials of the material had taken place. We therefore sought another project to assess and a new market to explore.

*Project 2: 'Sound Concepts'*



**Figure 4: Sound Concepts Business Model Canvas (first application: acoustic products for use in school classrooms and commercial office spaces)**

Returning to Blank's (2007) customer development process, our team formulated the hypothesis that "there is a need for design-led acoustic products in schools and offices to reduce sound reverberation and increase the aesthetic appeal". The research aim of the Sound Concepts project was to develop and produce acoustic baffle and pod designs for primary schools that will reduce the medical, social and language issues that impacted on a child's ability to learn (Perkins & Merwood, 2012).

The team focused attention on the school market to which the research was initially aimed. Our approach in validating customer needs did not change, even though we had a product offering rather than a potential technology offering (as was the case with Nacre). I moved the team into phase two of Blank's (2007) customer development process, as we sought to validate or test the assumption that the researchers had made in saying that there was a 'problem' with sound levels in classrooms.

We again turned to Adam's (2010) endorsement of phone surveys. As an initial scan of the market, I undertook the responsibility to canvas school property managers across the country, ranging from primary, immediate, special needs and secondary, across the public and private spectrum. The aim

of the phone calls was to identify who the customer is (the person who makes the purchasing decision at the school) and to get that customer to *express* the problem rather than narrowing their thinking as per Adam's advice. Examples of the potential questions I asked with aim of getting a better understanding of a potential customer:

1. Do you take acoustic performance/noise control of a room into consideration when fitting out the interior of a classroom? Have teachers expressed concern about the level of noise in a classroom? (with the associated concentration and health effects)
2. What is your main motivation for improving acoustics in a classroom? To what extent do you endure the acoustic effectiveness of a classroom? (i.e., Outside help)
3. What do you currently do to address this issue? What types of products do you use?

These questions or similar allowed the customer to elaborate on needs, problems or issues that they deal with on a day-to-day basis while still providing some structure to guide the conversation. After conversing with twenty-seven decision makers at different schools, patterns were starting to emerge in the data that we were collecting. See Table 3 for some examples of the feedback we received.

**Table 3: Initial Market Feedback for Sound Concepts**

Potential Customer 1 Principal (years 1-8)	<ul style="list-style-type: none"> <li>• Acoustics are taken into consideration "more and more"</li> <li>• Teachers have commented/ expressed concern on this</li> <li>• Growing needs of children - some special needs</li> <li>• They have "addressed" the acoustic problem:</li> <li>• with high quality wall insulation</li> <li>• wall coverings (sound proof)</li> <li>• Says it was the "best money ever spent!"</li> <li>• Wall coverings - by Autex (chosen by architect)</li> </ul>
Potential Customer 2 Principal (years 1-8)	<ul style="list-style-type: none"> <li>• Acoustic consideration is expected of the architect</li> <li>• No expressed concern by teachers</li> <li>• Classrooms are carpeted/ have soft boards/ pinboards</li> <li>• On a scale of importance 4 or 5/10</li> <li>• Has to weigh up decisions - wanted to upgrade 4 classrooms but could only do 2 b/c they opted for 100% earthquake strengthening</li> <li>• Described his ideal classroom as having speakers and audio equipment to allow the teacher to use when needed</li> </ul>
Potential Customer 3 Property Manager (years 1-13)	<ul style="list-style-type: none"> <li>• Acoustics "definitely" taken into consideration</li> <li>• Teachers have expressed concern</li> <li>• Use acoustic ceiling tiles</li> <li>• Main motivation for doing it – for the teacher</li> <li>• Complex built recently with acoustics taken into consideration</li> <li>• Main acoustic focus is on the target rooms of music/workshop etc</li> </ul>

The sample in Table 3 provides some insight into the overall data we collected from various sources. What became clear is that schools do take acoustics into consideration when fitting out a classroom however to varied degrees depending on budget restraints. The private school principals/ property managers I spoke with placed a greater importance on controlling the acoustic environment in a

classroom and had spent money on solving the issue. However, the public school's I spoke with generally had allocated their budget to satisfy other environmental factors such as "seismic strengthening".

The trends the team identified in the data suggested that the school market would be very small and further restricted by the budget restraints of most public schools. We therefore decided to focus our attention on the commercial office space market with the assumption that it would be more lucrative.

After an initial market scan of the commercial office environment, we began to understand that our new target customer also takes acoustics into consideration when fitting out an office. As the Marketing lead, I directed the team to speak to office managers on the phone to ascertain the importance of reducing sound reverberation and how they are currently addressing that issue. This would help us to get a better understanding of the needs and wants of the customer. The team used a structured approach to interviewing potential customers over the phone as with our previous work with 'nacre'. We discovered that office managers do actively consider the acoustic environment in the office and use a range of acoustic products to manage it. Some of the general feedback we received can be seen in the Table 4.

**Table 4: Commercial Office Space Market Feedback**

Potential Customer 4 Property Manager IBM NZ	<ul style="list-style-type: none"> <li>• Greatest acoustic consideration goes to meeting rooms, board rooms, quiet spaces and video conference rooms.</li> <li>• Acoustic however, is generally very important especially in at their call centres.</li> <li>• Acoustics accounts for roughly 5% of fit-outs.</li> </ul>
Potential Customer 5 Property Manager Simpson Grierson	<ul style="list-style-type: none"> <li>• Acoustics is a "huge" element, motivated by the need for client confidentiality and general staff productivity</li> <li>• Used acoustic engineers for couple of days to assess requirements of each meeting room and space</li> <li>• Areas mostly considered include meeting rooms, waiting areas and reception area</li> <li>• Materials used include, perforated wood panels on the walls, acoustic blankets.</li> </ul>
Potential Customer 6 Acoustic Consultant	<ul style="list-style-type: none"> <li>• all comes down to one person</li> <li>• marketing guy next to the accounts guy</li> <li>• companies prepared to pay \$100,000's to solve this one problem by installing new ceiling</li> </ul>

The team validated the assumption that commercial office environments require acoustic treatment however, we had not validated whether the products designed by the researchers would necessarily satisfy the customer need. The sample of data in Table 4 demonstrates a need for acoustic products

for certain areas within the office (e.g., meeting rooms or waiting areas). As there was already a significant number of competitors addressing customers need with acoustic ceiling tiles (which was referenced by almost all the office managers we had spoken to), the team decided to focus on requirements for meeting spaces in commercial office environments.

After the team discovered that there was a need for acoustic products in meeting spaces within commercial offices, Oliver suggested the possibility of using one of the acoustic products in quantity to produce a meeting room shell or “room within a room”. This would be created with the aim to reduce sound reverberation, act as a visual barrier and add to the aesthetics of the office.

The MATE team focused our primary research around the use of “breakout meeting” spaces or semi-private meeting areas which allows office workers to get away from their desk to have an informal meeting or social catch-up.

Returning to Adam’s (2010) endorsement of face-to-face interviews as an effective method of market validation, I arranged a meeting with the Head of Operations at Trade Me Ltd. The company had just gone through the process of organising a new fit-out for their office as they were transferring to a new space in 2014. The senior executive arranged for all the various parties involved in the new fit-out to meet together so we could ask them questions and gain insights into the refurbishment process.

A key aim for the meeting was to understand who the key decision maker is within the group who selects the interior products (including acoustic products). The meeting brought together Herriot | Melhuish Architects, L.T. McGuinness and Trade Me’s office managers. During the meeting we gained specific feedback about our product direction, our business approach and what we would have to do in order to make our value proposition valuable to them as customers. We discovered that the key decision maker about products in this process was the Senior Executive. With this information we were in a better position to target our market validation efforts on senior executives rather than office managers. We also learnt that understanding the needs and motivations of architects is vital as they are key influencers in the customers’ purchasing decision.

The team then analysed the data we have collected from all the property managers, senior executives, acoustic consultants and architects to find trends and gain insights from the information. We had ended up with a collection of defined market requirements which the customer demanded in order to consider making a purchasing decision. This invaluable data was again returned to Natasha Perkins and her research team at the School of Design to see if it could be accomplished.

After gathering and analysing the primary data, we provided a collection of market requirements for a meeting room product that had acoustic benefit:

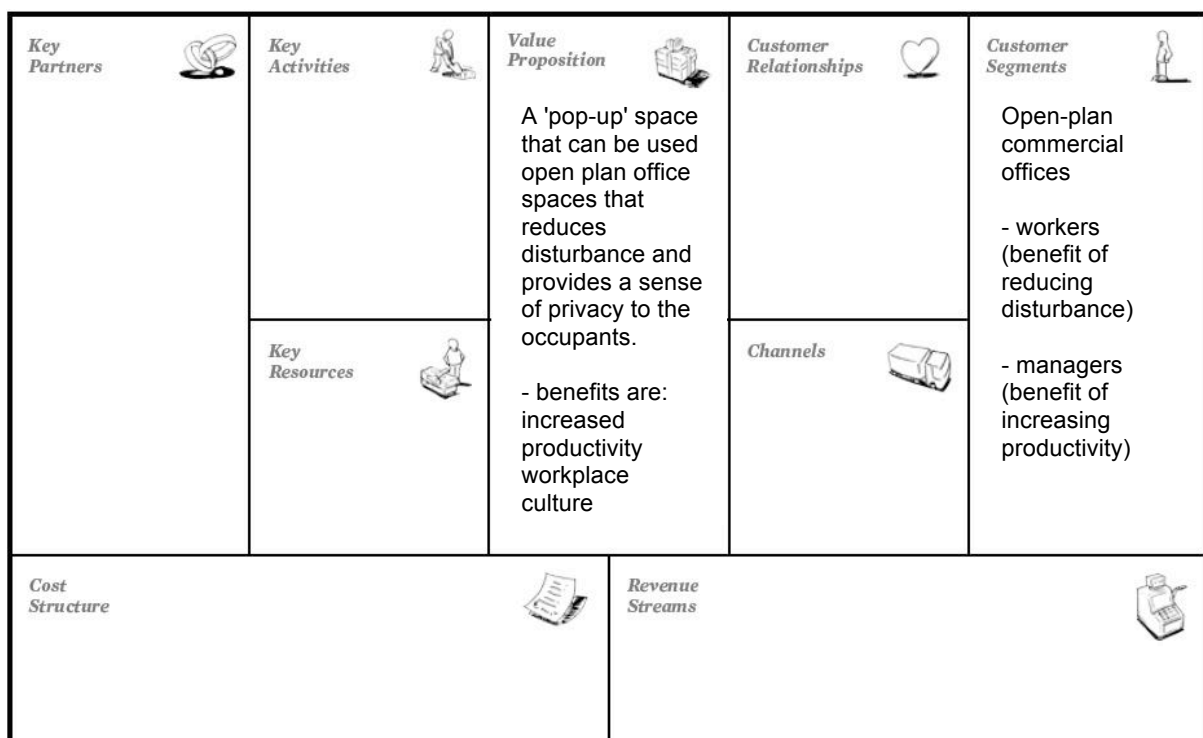


- simple to install (not requiring building content, contractors or major construction)
- Lightweight (can be moved easily by one person)
- Reconfigurable (to allow it to be used in a variety of different spaces)
- No higher than 180cm to avoid the need to move sprinklers or get building consent
- Freestanding without the need for additional supports such as bolts or ceiling suspension
- Have acoustic properties to dampen noise
- Cost-effective
- Be aesthetically pleasing
- New Zealand made
- Environmentally friendly

This collection of market requirements could ultimately not be met by the researcher's products as the cost of production would make them prohibitively expensive for a customer. After delivering this data to the School of Design, the MATE team was left with a collection of market requirements but without a product to satisfy them. This motivated the team to develop a product that would satisfy the market requirements we had gathered. More about how we gathered these requirements will be discussed in the next section.

### Project 3: HYV

Figure 5: HYV Business Model Canvas



The team revisited Kotler's first step in the Marketing Process Model – "understanding the customer needs, wants and demands" (Kotler & Armstrong, 2006, p. 6). Our extensive primary market research over the course of the 'Sound Concepts' project allowed us to get a better understanding of a potential customer in the commercial office space. With a collection of market requirements, attained from potential customers around the country, we had qualified that there was a market need. The next step was to quantify this information. Aulet (2013, p. 104) stresses the importance of "quantifying the value proposition". He explains that "the quantified value proposition gives you a concrete understanding of the measurable benefits your product will bring to your target customers...it is to clearly and concisely how the product's benefits line up with what your customer most wants to improve". Adams states that "electronic surveys are useful for collecting large amounts of quantitative information quickly and efficiently" (p. 106). At this point, we sought to 'verify' our hypotheses through Blank's Customer Discovery Process. We needed to ensure that the customer would be willing to and understand the value of satisfying their key market requirements (Blank, 2007).

As the Marketing lead, I sought to quantify the information we had gathered by sending out an internet survey to all the contacts we had established during the phone survey process. The survey consisted of some early-stage sketches of an imagined product based on the market requirements we had collected and was followed by questions that allowed the customer to rank in order of value/importance, each of the market requirements we had collected. The aim was to ascertain which potential features were "must haves" in the product offering rather than "nice to haves".

The contacts we had previously established were asked to rank the importance of each product feature and how it would affect their purchasing decision on a scale of 1-10, with 10 being a feature of great importance or value. A sample of the results can be seen in Table 5.

**Table 5: HYV Market Requirements**

Market Requirement	Scale	Total	Rank
Simple to install, not requiring building consent, contractors or major construction.	9,9,10,10	38	1
Lightweight (can be moved easily by one person)	8,7,1,1	17	10
Reconfigurable to allow it to be used in a variety of different spaces	9,9,2,5	25	7
Can be taken apart and fitted together quickly and easily by anyone (i.e office workers)	9,6,2,2	19	9

No higher than 180cm to avoid the need to move sprinklers or get building consent.	10,9,10,8	37	2
Freestanding without the need for additional supports such as bolts or ceiling suspension.	10,10,10,7	37	2
Have acoustic properties that dampen noise	8,2-3,10,9	30	5
Data/power options built into the structure of the product	10,8,8,6	32	4
New Zealand made	8,8,5,4	25	7
Environmentally friendly	8,7,8,3	26	6

This information was vital for Oliver (the member of the team with a product development focus) so he could begin to design a prototype that could meet these requirements. As you can see from the Table 5, the results were interesting. For example, 'simple to install' was the top ranked feature whereas 'lightweight' was least important.

### Stage 2: Designing a customer-driven marketing strategy

Kotler and Armstrong's (2006) second stage of building a marketing strategy is to design a customer-driven approach. They define a marketing manager's aim "to find, attract, keep, and grow target customers by creating, delivering, and communicating superior customer value" (p. 8). The authors recommend two areas to be addressed in order to make the marketing strategy customer-driven. The first is to "select customers to serve" through the process of market segmentation and targeting and the second is to "decide on a value proposition" through the process of differentiation and positioning.

Aulet (2013) defines the process of market segmentation as identifying multiple potential market opportunities. Aulet next describes the process of selecting a "beachhead market" (p. 41). This is the process of segmenting all the available markets to focus on one. Aulet believes that "choosing a single market to excel in" is fundamental to the success of a start-up business as they "can more easily establish a strong market position" (p. 43). Aulet illustrates the reasoning for selecting a "beachhead market" with the analogy of the military using a "beachhead strategy", where "the army lands a force on a beach in enemy territory, controlling that area as their base to land more troops and supplies, and to attack other enemy areas" (p. 43). The areas being new markets, so that once a start-up has gained a dominant share in their first target market, they will be able to venture into new markets with increased resources. Aulet outlines some criteria to help start-ups find their "beachhead market". Some of which I have outlined below (p. 44):

1. Is the target customer well-funded?
2. Is the target customer readily accessible to your sale force?
3. Is there entrenched competition that could block you?
4. If you win this segment, can you leverage it to enter additional segments?

Blank (2007) echoes Aulet's advice. He stresses the importance of understanding how the product is different from competitors and how that should effect the decision to enter a particular market. Blank advises to position the product offering against existing competitors by creating a competitive or market positioning diagram. This is where the company picks two or more key product features and compares them with competitors along axis corresponding to those features (p. 55).

Kotler and Armstrong (2006) then advise to "choose a value proposition". They define this as "the set of benefits or values it promises to deliver to the consumers to satisfy their needs" (p. 9). Aulet (2013) suggests to create a "high-level product specification" and then to "quantify the value proposition" to help in this process (p. 91). Aulet states that a "quantified value proposition focuses on what potential customers want to gain rather than going into detail on technology, features, and functions" (p. 105). Osterwalder et al. (2010), also encourages the creation of a value proposition and states that "it is the reason why customers turn to one company over another" (p. 22). Our value proposition is discussed in the case study. The development of value propositions in multiple stakeholder domains can provide an important mechanism for aligning value within a marketing system (Frow & Payne, 2011).

#### *HYV Analysis:*

This paper now address only the HYV case study, as neither 'nacre' nor 'sound concepts' progressed beyond the customer discovery process or stage one of Kotler's model.

In my role as the marketing lead, I sought to segment the current market opportunities we had in order to identify a "beachhead market" for entry. With our collection of market requirements from multiple sources, we had a good understanding of the market as a whole. However, I wanted to target a niche area which we could dominate before attempting to satisfy all our potential customer's needs.

During the course of our primary market research, Wellington (where the team is based) was hit by a series of earthquakes. This resulted in numerous businesses being displaced from their offices due to the questionable structural integrity of their office buildings (Fensome, 2013). The team saw this as an opportunity to target customers that need a 'temporary' office solution rather than targeting established offices that require permanent fit outs. We therefore targeted the businesses that were

displaced and assessed the commercial viability of our potential product with them. It turns out that the market requirements we had already acquired matched a lot of their needs such as 'lightweight' and 'freestanding'. As the marketing lead, I therefore decided to target customers that need temporary meeting solutions as our beachhead market. We wanted to position our proposed product as an easy-to-use meeting space for businesses in transition or that have been displaced. I also recognised that this beachhead market could lead into additional markets that require temporary, freestanding meeting spaces such as the exhibition, events and conference markets. The team also saw scope for the temporary product to be used in established, permanent commercial office spaces as well.

In order to confirm a decision of a beachhead market, we set out to answer Aulet's (2013) criteria (p. 44):

1. Is the target customer well-funded?

The target customers are commercial businesses with established budgets for interior office fit outs. Our research indicated that the target customers were comfortable paying upwards of \$1,500.00 NZD per office divider or panel.

2. Is the target customer readily accessible to your sales force?

We have already established relationships with multiple commercial and government organisations through our customer discovery process

3. Is there entrenched competition that could block you?

After an initial competitor analysis, we have identified numerous office furniture companies domestically and internationally, however none of them provided a temporary, cost-effective solution.

4. If you win this segment, can you leverage it to enter additional segments?

We have identified numerous additional market segments for entry including the events, conference and exhibition space. These customers are in need of temporary structural/ display solutions as well as meeting rooms.

Having identified a beachhead market, the product team created a first prototype out of cardboard, being sure to satisfy all of the requirements as indicated by our potential customers. The next step was to strengthen our on-going relationships with the customers we had previously contacted, by inviting them to a viewing of our prototype. This would allow us to get invaluable feedback about

whether we were addressing the customer's needs, as described by them on the phone and through one-on-one interviews.

The potential customers had the opportunity to discuss with us the features of the prototype and come up with suggestions for further improvements. Some of the feedback we received from the prototype can be seen below:

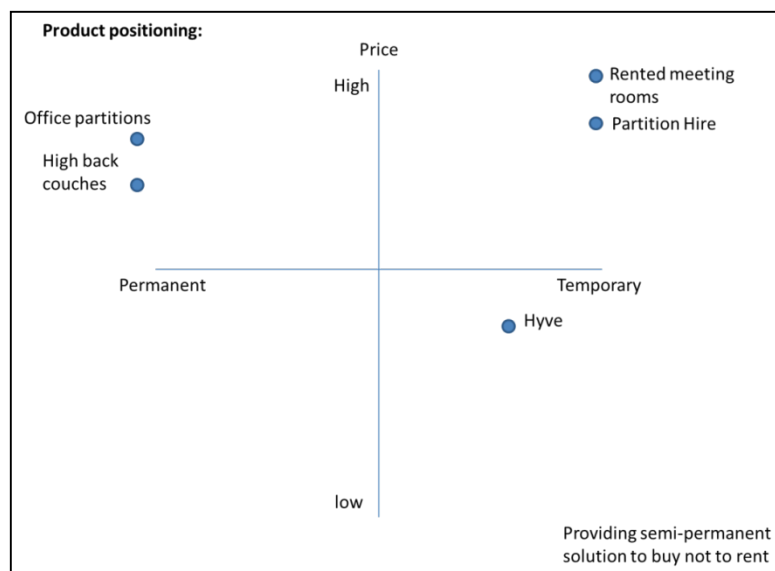
**Table 6: HYV Temporary Office Space Market Requirements**

Potential Customer 1 Office Manager	<ul style="list-style-type: none"> <li>• Would suit small meeting, "collab cafe", single person Skype calls. Ability to accessories with additional feature a plus</li> <li>• Likes the height, and configurability of being able to create different sized spaces. When it comes to furnishing, she prefers DIY approach.</li> <li>• "how much can we modify the panels ourselves" i.e. cut out windows, hang Objects etc.</li> <li>• Doesn't mind the 'cardboard look', would add several whiteboards. "Coffee sacks would look cool"</li> <li>• Prefers to buy the standard set and paint it themselves</li> </ul>
Potential Customer 2 Property Advisor	<ul style="list-style-type: none"> <li>• Envisions small meetings, use for temporary events like tribunals</li> <li>• Likes the height and smaller rooms and size; good for 3-6 people meetings...Can use board rooms for bigger meetings.</li> <li>• Would furnish the space with coffee table set up with some informal furniture</li> <li>• Finds the level of acoustic and visual privacy sufficient.</li> <li>• Very interesting in the ability to configure Hyv in various shapes and sizes. Doesn't value the 're-configurability' as much because of</li> <li>• Aesthetically "not too bothered" by the visibility of the cardboard in a temporary solution. Although he little bit extra for the painted version</li> <li>• Likes the curves and whiteboard functionality</li> <li>• Pricing wise; prefers the basic \$900 unit, and perhaps the painted unit</li> </ul>
Potential Customer 3 Co-ordinator of business incubator program	<ul style="list-style-type: none"> <li>• Envisions use as a meeting/ breakout room for different teams within the office.</li> <li>• Wanted to see a better aesthetic and raised the idea of enabling customers themselves to add their own originality to the panels via spray paint or by pinning items to the walls. Without the added features, he felt like he was in a "cardboard box".</li> <li>• Felt encouraged that the cardboard allowed him to customize the panels to fit different spaces including the ability to potential cut around the bottom of a panel to allow it to fit over a skirting-board of a wall.</li> <li>• Indicated an interest in buying multiple meeting rooms at \$5000.00</li> </ul>

As seen in the feedback above, we received a mostly positive response to the prototype. The key market requirements that were confirmed included "easily installed, lightweight and cost-effective". We also learned that the 'aesthetic' or design element was really important, even for a temporary product. Customers were also prepared to pay a premium for a better looking aesthetic. The

feedback also changed our thinking of the word “temporary”. We had initially imagined this to mean that the product is used with a life-span of 3 months (to satisfy temporary business relocation) however, it became apparent that the customers would prefer a more permanent product, with a large life-span, so it can be used and stored when it is required. With this fresh thinking, I realigned our beachhead market to more permanent established commercial offices that required temporary meeting spaces.

In order to assess the competitive landscape in the market, following Blank’s method, I created a series of competitive diagrams to find our positioning in the market. We believed the core features that the product offered were its reconfigurability (in temporary settings) and its cost-effectiveness. An example of one of the competitive diagrams can be found in figure 6.



**Figure 6: Competitive Diagram**

With a better understanding from the customers of the features they would expect in a product and having analysed the competitive landscape of the market, our team had segmented the market to identify a beachhead market. I had quantified and confirmed the market requirements given to us by potential customers through phone surveys, one-on-one conversations, internet surveys and with a concept viewing. The market requirements we had originally gathered in table 5 adapted to our new approach. For example, requirements such as “lightweight” and “reconfigurability” became more important in the temporary context. We had established a set of benefits that seek to satisfy the needs of the customer. These benefits made up our value proposition. Our value proposition to customers was to offer a cost-effective, temporary, fit-out solution that provides privacy and decreased disruption in open-plan office environments.

### Stage 3: Construct a marketing program that delivers superior value

Kotler and Armstrong's third step in the Marketing Process Model proposes to outline "which customers the company will serve and how it will create value for these customers" with the preparation of a marketing program and plan (Kotler & Armstrong, 2006, p. 2). According to Kotler, the marketing program builds customer relationships by transforming the marketing strategy into action. The marketing program consists of the "marketing mix", a set of tools that a company uses to implement its marketing strategy (Kotler & Armstrong, 2006, p. 12). Kotler organises these tools into four broad categories called the four P's of marketing (Kotler & Armstrong, 2006, p. 28):

1. Product – the company must deliver a need satisfying marketing offer
2. Pricing – the company must decide how much it will charge for that offer
3. Place – the company must decide how it will make that offer available to target customers
4. Promotion – the company must then communicate with the target customer about the offer and persuade them of its merits

#### *HYV analysis:*

##### Product:

With an understanding of our target customers, the HYV team sought to create a product that would satisfy their need for a temporary, cost-effective meeting space for use in open-place commercial office environments. With all the information we had accumulated, the team had made decisions about our product features purely from primary customer feedback. We elected to have a stripped down version as a base model with the option to include additional features at a cost. We sought to aim the stripped down version directly to offices that needed an immediate quick-fix, temporary solution. The aesthetic element or design was a key premium feature that we became aware customers were willing to pay extra for.

The product itself was being developed by Oliver in our team and sought to satisfy the collection of market requirements we had gathered in Table 5. Oliver focused on using a lightweight material to create a system of customizable panels that can be easily configured to create meeting rooms, breakout spaces and multi-functional partitions.

##### Price:

In order to decide an appropriate price for our offering, we looked to customer feedback, the competitive landscape and manufacturing costs. We estimated the cost of production to be around \$180.00 per panel. Additional extras to be added to the panel however, would increase this cost.



With a responsibility for marketing in the team, I researched similar products in the marketplace. Some of which can be found with the corresponding price in table 7.

**Table 7: Competitor products**

<p><b>Zenith - BuzziScreen</b>          “A flexible room divider. It can be extended infinitely: the handy recycled zipper system makes it easy for you to add panels. Pin objects, photos or letters to the screen and it works as sound insulation as well.”</p> <p><b>4x 150cm Panels: NZ\$2,385</b>  <b>2x 200cm Panels: NZ\$1,620</b>  <b>Extra panels: NZ\$815</b>  <b>Feet: NZ\$219</b></p> <p>(prices ex Europe, not including shipping)</p>	
<p><b>Woven Image - Platoon</b> - Freestanding Polyester acoustic room dividers</p> <p><b>NZ\$2,650 per panel</b></p>	
<p><b>Sciavello - Soft Boundary</b> - Freestanding Polyester acoustic space dividers</p> <p><b>Stratus: 1600x900x350: NZ\$2,405</b>  <b>Cirrus: 1150x900x300: NZ\$1,479</b>  <b>Nimbus: 600x600x250: NZ\$979</b></p>	

The feedback we received from the customer also provided us with some guidance on where we should set the price. Through our discussions with customers, we provided price brackets for customers to pick which price they would consider acceptable for the offering. We also understood one of the core market requirements sought by the people we spoke with, was a 'cost-effective' solution as the current products in the market commanded a high price. Even with a low manufacturing cost, we sought a mark-up of 50% to create a sustainable business model. We decided to price the product at: \$900.00 for the stripped down, basic version with the option to add premium features. Adding an acoustic material for example would cost approximately \$500.00 NZD on top of the basic model. This price placed us combatively against the current more expensive products in the commercial office space. With a differentiation on targeting "temporary use", the lower price opened up the market opportunity to growing SMEs, start-up companies and companies that generally sought attractive fit out options but do not necessarily have the budget to match their aspirations.

#### Place:

The team investigated the best way for customers to acquire the product and decided that in the company's early stage of growth, the most appropriate way is to make the product-to-order via a website order form or through communication through email. The team believed that this would be the best approach as it is cost-effective in comparison with direct sales or advertising.

#### Promotion:

With an idea of the eventual product, we then sought to design it in a way that would satisfy all the customer requirements. We sought to add value to our offering through distinctive style and design while still offering a cost-effective solution. With the promotional responsibility in the team, I felt we should create a unique brand that we would be able to channel into the eventual product design. We hired two talented designers to provide us with a brand identity based on our requirements and customer feedback. A brand as defined by Kotler is "a name, term, sign, symbol or design, or a combination of these, that identifies the maker or seller of a product or service" (Kotler & Armstrong, 2006, p. 243). Kotler goes on to discuss the importance of brands stating that a "brand is the company's promise to deliver a specific set of features, benefits, services, and experiences consistently to buyers" (Kotler & Armstrong, 2006, p. 250). Verhoef, Reinartz and Krafft (2010) assert the importance of customer engagement as a behavioural manifestation toward the brand or firm that goes beyond transactions.

With this in mind, we discussed the creation of our brand strategy with the graphic designers. The first thing we considered was a brand name. Kotler advises six criteria for the selection of a brand name (Kotler & Armstrong, 2006, p. 251):

1. It should suggest something about the products benefits and qualities
2. It should be easy to pronounce, recognise and remember
3. It should be distinctive
4. It should be extendable
5. It should be easy to translate into other languages
6. It should be capable of registration and legal protection

As the coordinator of branding for the team, I wanted to use this opportunity to not specifically brand the product, but to brand the 'space' that the products create. We proposed a brief to the designers to brand the benefit we sought to create – productive meeting spaces in busy environments. Our hope was that companies would eventually refer to a meeting room or meeting space as a "HYV".

The team had discussed names that could suggest the benefits of the product in creating productive, quiet meeting spaces in busy environments– such as cocoon, hub, hive, shell, etc. We settled on the name 'hive' as it insinuated a productive nest or space. We researched the name across markets and it turned out to be very popular in different industries and sectors, so it was unable to be protected legally. We therefore decided to exchange the "i" with a "y" to create "hyve". We felt this brand name, satisfied most of the criteria outlined by Kotler. After brainstorming with the designers however, they recommended we drop the "e" in "hyve" to create an even more distinctive and unique name "HYV" whilst maintain the pronunciation of the word "hive". We also discussed the ability to make the brand extendable with the design team. As we had only developed the first product and we expected a range of products from simple dividers to more acoustically beneficial, premium products. We wanted to have a consistent brand theme but also brand the individual products in the range. We decided that adding a corresponding 'version' number (e.g. 1.0) after each product would satisfy the extendable criteria while still being distinctive. The "v" at the end of "HYV" could also be construed to represent the word "version". Therefore our first product was branded "HYV 1.0". An example of the designers work can be seen in Figure 7.

**Figure 7: HYV Brochure including the designer's logo**



The brand identity coupled with the market requirements as gathered from potential customers, gave a brief to the product development team to create a practical, cost-effective solution that includes the design elements created by the designers. Our branding inspired the use of yellow and different shades of grey as the colour for the actual product. The colours complimented each other well and made for an attractive meeting space. The final prototype of “HYV 1.0” can be seen in Figure 8.

**Figure 8: HYV prototype**



With the brand identity in place and the final version of the prototype built, we created promotional materials to help communicate the value to customers. After previous discussions with potential customers, we understood what benefits, features and wording to use to target their interest. The designers created a brochure that communicated the key benefits of the product and to capture the

attention of customers through the brochure's innovative design. The brochure was folded in a way to resemble the panel product that we had produced. That way, multiple brochures could be assembled in a way to create different variations of meeting rooms. This achieved its purpose of communicating the core benefits of the product "flexible, lightweight, reconfigurable, versatile and simple".

#### Stage 4: Build profitable relationships and create customer delight

According to Kotler and Armstrong the most important step in the marketing process is "building profitable relationships" (Kotler & Armstrong, 2006, p. 13). This process is known as 'customer relationship management' or 'CRM'. Kotler defines customer relationship management as "the overall process of building and maintaining profitable customer relationships by delivering superior customer value and satisfaction. It deals with all aspects of acquiring, keeping, and growing customers". As Yu (2001) describes, the key is for the CRM effort to move beyond sales, marketing, customer services and assisting customers to include operations and the "Office of the CEO" or strategic planning.

Kotler details two building blocks to creating sustainable customer relationships. The first is to create superior customer value and the second is to create customer satisfaction (Kotler & Armstrong, 2006, p. 13). He makes the point that customers act on "perceived value" which is the "customer's evaluation of the difference between all the benefits and all the costs of a marketing offer relative to those of competing offers". Creating customer satisfaction "depends on the product's perceived performance relative to a buyer's expectation. If the product's performance falls short of expectations, the customer is dissatisfied. If the performance matches expectations, the customer is satisfied. If the performance exceeds expectations, the customer is highly satisfied or delighted".

Kotler also recognises the importance of targeting fewer, more profitable customers rather than trying to build relationships with every customer, otherwise known as "selective relationship management" (Kotler & Armstrong, 2006, p. 15). This is echoed by Musalem and Joshi (2009) who show that a firm should invest most heavily in retaining those customers that exhibit moderate responsiveness to its CRM efforts.

Kotler and Armstrong state that a marketing strategy must also include "Partner Relationship Management". They recognise that most companies "rely heavily on partnerships with other firms" in order to deliver their marketing offer (Kotler & Armstrong, 2006, p. 18). These partners can assist with channels to market. These can consist of "distributors, retailers, and others who connect the company to its buyers" (Kotler & Armstrong, 2006, p. 19). Channels to market are also a key part of the business model canvas. Osterwalder describes channels as how the "company communicates

with and reaches its Customer Segments to deliver a Value Proposition” (Osterwalder, Pigneur & Smith, 2010, p. 14). He explains that channels are “customer touch points” that play an important role in the customer experience. Osterwalder states that we can distinguish between direct channels and indirect ones, as well as between owned Channels and partner Channels (Osterwalder, Pigneur & Smith, 2010, p. 27). Direct channels to market can include the use of a sales representative and web sales for example, whereas indirect channels can include wholesalers and supply chain partners.

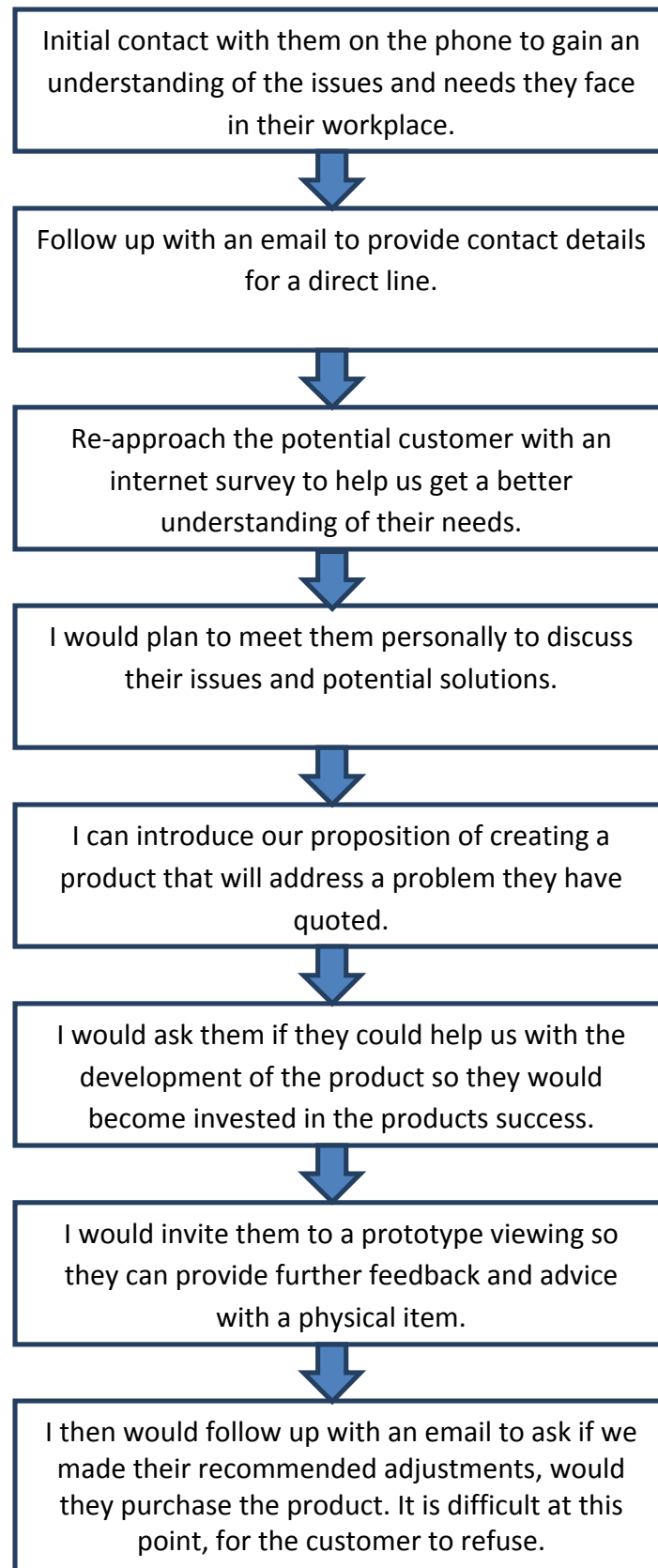
Osterwalder emphasises the importance of customer and partner relationships by designating an individual section for each in the business model canvas. He states that ‘customer relationships’ can range from personal to automated and can be driven by different motivations including: customer acquisition, customer retention and boosting sales (Osterwalder, Pigneur & Smith, 2010, p. 28). He states that ‘key partnerships’ describes the “network of suppliers and partners that make the [business] model work” (p. 38). Osterwalder states that “companies create alliances to optimize their business models, reduce risk, or acquire resources” (p. 38). He goes on to distinguish between four different types of partnerships: Strategic alliances between non-competitors, coopetition – strategic partnerships between competitors, joint ventures to develop new businesses and buyer-supplier relationships to ensure reliable supplies. Lambert (2010) also recognises the importance of building a framework that managers can use to implement a cross-functional, cross-firm, CRM process in business-to-business relationships.

#### *HYV analysis:*

From the outset, as the marketing and business development lead, I placed a large focus on building sustainable relationships with potential customers with the aim of making those relationships profitable. This focus on understanding the customer’s needs laid the foundations to develop strong relationships. As the team developed HYV from concept to product, some customers have been with us during the whole process providing insight and feedback. We understood the importance of building these customer relationships as they acted as a pathway for us to gain a better understanding of the marketplace and product to solve a need or problem.

I understood that it was my responsibility in the team to manage these relationships. I sought to manage these relationships on a personal level driven by the motivation of eventually acquiring them as a profitable customer as referred to in Osterwalder’s designation of customer relationships. Figure 9 outlines my usual method from identification to qualification of a potential customer.

Figure 9: Flow-Chart of practical steps from identification to qualification



It is important to the business that the team actively work on developing customer relationships. As per Kotler's definition, we sought to do this by delivering superior customer value and satisfaction. In the development of our product, one concern I raised as the market focused member of the team, was with the "perceived customer value" of the material that the product development team sought to use to manufacture the product. Oliver, who is responsible for product development in the team, used 'cardboard' as it was cheap, lightweight and easily movable. Although, I did recognise these benefits, my concern was with the customer's "perceived value" compared with other competitive products in the market. I was concerned that the customer would *expect* to pay a lot less than the sustainable price point that the team had considered, as the customer would already have a preconceived idea of the value of cardboard. I was also concerned from a public relations point of view. This fear was extenuated when we heard that one of our potential customers referred to us as the "cardboard cubicle company". This was not an image we could afford to have as it would affect the price that customers were willing to pay for a solution to their need. We eventually agree to augment and disguise the cardboard, and focus on the core benefits that customers had said they were looking for – ease of use, reconfigurability and flexibility. This was our strategy in order to achieve customer satisfaction. Our product was being positioned as a cost-effective solution that focused on these core benefits rather than the fact it was built out of cardboard. We also planned to release a range of products from the 'cardboard', cost-effective solution to more premium product that would seek to satisfy customers who expect a higher quality finish.

In my role, I recognised Kotler's emphasis on 'selective relationship management'. I sought to target groups of customers that could offer a more profitable return rather than to develop significant relationships with all the potential customers that we had contacted. I sought to develop more established relationships either larger corporate business that have regular office fit-out needs with larger budgets to do so and also with companies that required an immediate fix to their current situation. For example, Eagle Technology was displaced out of their office due to a severe earthquake in Wellington. They were in a temporary location, without meeting rooms and sought temporary furniture to keep their staff productive.

As referenced by Kotler, we also undertook 'partner relationship management' as well as 'customer relationship management'. The team understood that in order for our value proposition to be delivered to the customer, we would have to rely heavily on partners. We sought out partners particularly in the manufacture, supply and distribution areas. These are the areas that were lacking in our current business model. As Osterwalder advises, we sought to create alliances to optimize our business model. As the business development lead in the team, I also had some responsibility in seeking out and fostering relationships with potential partners. The product development member



of our team forged a relationship with a cardboard supplier so that we had access to the raw material to create the product. This relationship is an example of a strategic alliance between two non-competitors seeking their own gain. As the marketing lead, I sought to develop a partner relationship with a design group that would help us connect the company to buyers. This partner would help the team raise awareness of our product in the marketplace and allow us to form an identity that customers can trust.

### Stage 5: Capturing Value from Customers

The first four steps of Kotler & Armstrong's marketing process model involved building customer relationship and delivering superior value to those customers. The final step of the model involves "capturing the value in return, in the form of current and future sales, market share and profits" (Kotler & Armstrong, 2006, p. 19). Kotler discusses the outcomes of creating customer value as being customer loyalty and retention, share of market and share of customer, and customer equity.

Reichheld states that good customer relationship management should have the aim of creating "customer delight" (Reichheld, 2003). In return, delighted customers remain loyal and talk favourably to others about the company and its products (Kotler & Armstrong, 2006, p. 19). Kotler talks of the importance of not just acquiring customers, but keeping and growing them. He states that the loss of a customer is more than just a single sale, it means the loss of an entire stream of purchases that a customer would make over a lifetime of patronage (Kotler & Armstrong, 2006, p. 19). This is supported by Stahl, Matzler and Hinterhuber (2003) who argue that customers have to be treated as assets that increase shareholder value by accelerating and enhancing cash flows, reducing cash flow volatility and vulnerability and increasing the residual value (p. 267).

Kotler also talks of the motivation of many companies to maintain good customer relationships and capturing the customer lifetime value in order to help increase their "share of customer" (Kotler & Armstrong, 2006, p. 20). The share of the customer is the "portion of the customer's purchasing that a company gets in its product categories". Companies can increase customer share by offering a greater variety to current customers and through training staff to up sell and cross-sell other products or services that they offer (p. 20). McNatt, Glassman and Glassman (2010) support this by asserting that customers who are selected on the basis of their lifetime value provide higher profits in future periods than do customers selected on the basis of several other customer-based metrics.

Kotler and Armstrong (2006) state that the ultimate aim of customer relationships management is to produce high "customer equity" (p. 21). Creating customer equity is "the total combined customer lifetime values of all the company's customers". Kotler says that companies "want not only to create profitable customers, but to "own" them for life, capture their customer lifetime value and earn a

greater share of their purchases". Companies should have the "goal of building the right type of relationships with the right customers" (p. 22). Companies aim to invest in profitable and loyal customers or "true friends" (Reinartz & Kumar, 2002, p. 93).

#### *HYV Analysis:*

It may well be too early to comment on this section in regards to HYV's current progress. We have however, developed one relationship to the point where they are seeking to purchase the finished product. This organisation is called the "Lightning Lab", a 3-month digital accelerator program for tech start-ups. They see value in a temporary and reconfigurable solution to allow them to adapt their workplace to the varying needs of the start-ups that are participating in the incubator program. The Lightning Lab program coordinator was looking into temporary commercial office spaces for rent when I approached him. Since then, he has been a fundamental part of the product development process, providing real-time customer feedback and recommendations. The focus of the team was to "delight" the customer. We felt this relationship building approach, where the customer feels part of the development, creates "delight" in the end result. Sam has acted as an advocate for our company to other more sceptical customers.

The next challenge of the team was to acquire our 'share of the customer'. Since Sam appreciates our service and first product, we encouraged him to help us brainstorm ideas for the next models in our eventual range of products. He initially sought temporary, cost-effective solutions but also saw the value in more permanent, premium solutions. I found this as an effective way of cross-selling or up-selling by forming new product ideas and allowing the customer to be part of the development process. Conceivably in the future, we could expand our range to include other types of office furniture to allow a cross-pollination of customers across a range of office related products that we could sell. This would be our attempt to gain a greater share of a customer or office manager in this case, who is seeking to redesign or fit-out a new office space.

The team understands that once we have a select group of loyal customers with a range of office furniture products to offer them, we would aim to produce high "customer equity". We should actively seek to build relationships with the most profitable and loyal customers to ensure repeat business and a sustainable business model.

### **Lessons Learnt/ Objectives Revisited**

Upon the application of Kotler's model to the three case studies that the MATE team covered this year, this paper will now assess whether the objectives it set out to achieve have been fulfilled.

## Revisiting Objectives

### Enterprise Development:

- To build a business model that offers value to a set of customers
- To explore the challenges of the assessing the commercial viability of early-stage research-led technologies and/or product

### Academic:

- To explore the use of different marketing approaches and their application to the development of an early stage start-up business marketing strategy
- To recommend the use of a preferred marketing model for start-up teams that are in similar circumstances

### Role/ Discipline Development:

- Explore the influence of a potential customer in early stage marketing decisions
- To explore and build practical experience in the marketing discipline

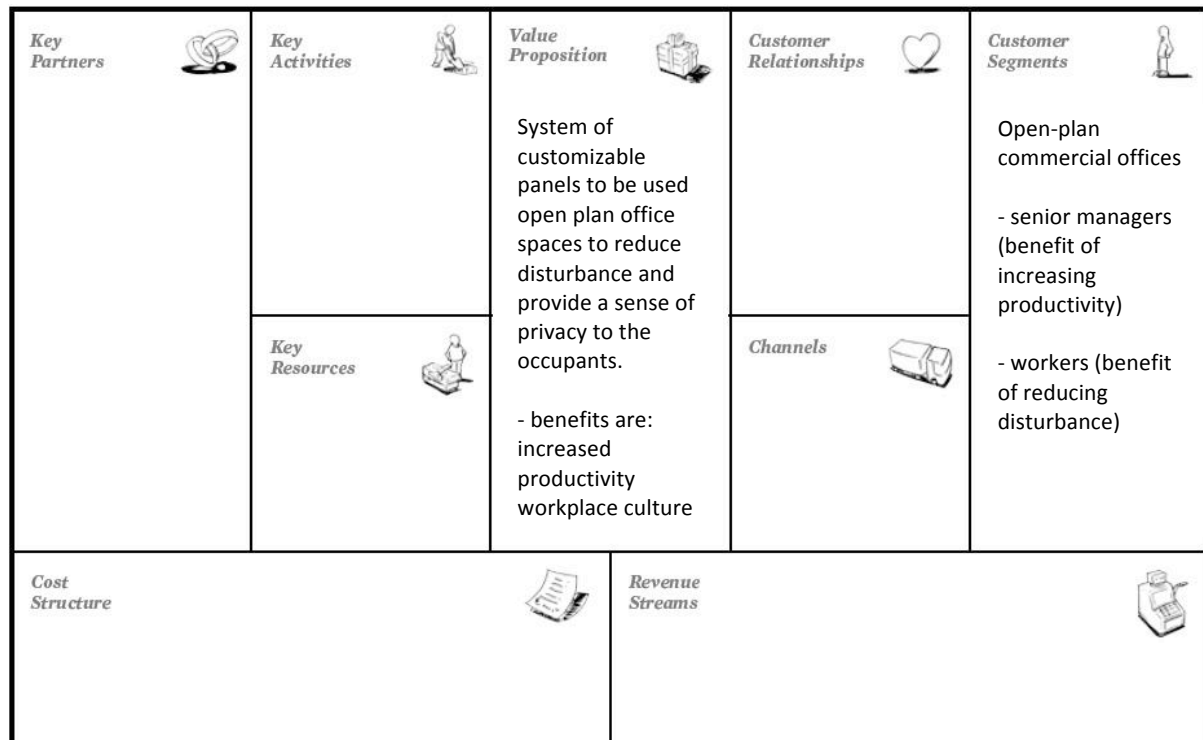
## Enterprise Development:

- **To identify and understand the needs of a set of target customers to act as the basis for the development of a viable business model**

The team had managed to create a business model based on a market need as expressed by customers. With the HYV product, the team had identified a value proposition that satisfies a customer need. With this key characteristic of a business model in place, we were able to address the other key elements of a business model including cost structure, revenue streams, key partners, key activities and channels to market.

We were able to achieve this through our application of the business model canvas and through the guidance and structure of Kotler's Marketing Process model.

**Figure 10: Final HYV Business Model Canvas**



- **To explore the challenges of the assessing the commercial viability of early-stage research-led technologies and/or product**

The team encountered many challenges during the year however, through these challenges created learning opportunities. One learning for the team was understanding that the need for feedback from the customer doesn't stop after the first step of Kolter's model, it continues through to the sale and beyond. In my role within the team, I dealt with customers every day and I felt my understanding of the customer matured and changed as we progressed through the steps in the model.

The primary market research we did in the first step to understand the customer's 'needs, wants and demands' we developed over the course of the Sound Concepts and HYV projects, acted as a foundation for our actions during the following steps. It was this bedrock that allowed us to build upon customer relationships and understand how to market to them.

During the product development process in step four, we constantly sought feedback from potential customers to help us improve and make adjustments to our prototype where necessary. The customer was a fundamental part of this process. Oliver (our product development team member) made iterative adjustments based on a constant feedback loop we created with our customers. The aim of this process was to create a product that would be of value to the customer as well as setting the ground work for a potential sale.

At multiple times during the year, the team had challenging decisions to make about direction and potential product features. Having gained a thorough understanding of the marketplace through our interactions with hundreds of potential customers, there is a temptation to make an assumption about what feature or direction the customer would prefer. This caused a dilemma for the team on more than one occasion. At the beginning of the year, we used the business model canvas to list all of our assumptions on the wall and by the end of the year, we knew how our assumptions can be vastly far from the truth after consulting with customers. The canvas had changed more than fifty times during the course of the project. We learnt not to act or make decisions on our assumptions. We needed evidence from customer feedback to inform the decisions we made. Although this may seem like a lengthy process, the team felt that it was of paramount importance to be guided by the customer to inform our decisions.

One such decision was based around the possible development of a wool-based fibre covering to add some air filtering benefit to the cardboard base. An external company, who supplied the wool, sought to partner with our team to enter the commercial office market. The decision that faced our team was a difficult one. In one hand we had the opportunity to develop a new product with a new material but in the other, we had a range of market feedback that suggested that air filtration was not of any importance in the making of a customer's purchasing decision. Throughout our primary market research we had not encountered any concerns about air quality in the office work environment or any concern about addressing this issue. In short, it was not a customer need, demand or want. If undertaken, it would be an expensive distraction from providing a product that would be valued by the customer.

### Academic:

- **To explore the use of different marketing approaches and their application to the development of an early stage start-up business marketing strategy**

As discussed at the beginning of the thesis, we explored three different strategic approaches that are commonly used when introducing a new innovation to a new market. They included:

1. Kotler & Armstrong's Marketing Process Model
2. Rogers's Diffusion of Innovations
3. Ansoff's Matrix Model

The team decided to adopt Kotler and Armstrong's (2006) Marketing Process Model as a strategy for the year. This thesis then discusses how we implemented the model over three projects. We opted to use the Marketing Process Model because it was broad enough to include the two other models

mentioned above as well as being flexible enough for us to experiment with different approaches within it. We primarily chose to adopt Kotler's model because of its customer-centric focus. Kumar, Jones, Venkatesan and Leone (2011) repeatedly surveyed top managers at 261 companies regarding their firm's market orientation. They found that the firms that were early to adopt a market-led strategy gained more in sales and profits than those that didn't.

The MATE team understood that at the earliest stage of a potential start-up business, understanding the customer, was of paramount importance. Ansoff and Rogers presented models that had primary focus on the product and business growth respectively.

As an early-stage start-up team exploring potential in markets and building potential business models for investment, Kotler's model provided a good strategic pathway for the team to follow. However, this paper does not suggest that Kotler's model would work for every start-up team exploring new markets. The model worked in our situation as it aided the team to make decisions about direction based upon customer feedback.

The customer-led approach endorsed by Kotler's model helped the team understand the importance of developing and maintaining relationships with potential customers early on, with the eventual aim of converting these relationships into profitable ones. Seybold (2001) promoted the idea of getting inside the lives of your customers as he recognised the importance of understanding customer needs. On the other hand, Gummesson (2008) found that just focusing on the customer and customer satisfaction is not possible in practice and that businesses have to balance the interests of many stakeholders to create 'balanced centrality'. However, Kotler's model's customer-led approach is supported by Osterwalder's 'Business Model Canvas', Blank's customer development process, Aulet's *Disciplined Entrepreneurship* approach and other academics referred to in this thesis (Osterwalder, Pigneur & Smith, 2010; Blank, 2007; Aulet, 2013; Stahl, Matzler, & Hinterhuber, 2003; Blocker, Flint, Myers & Slater, 2011; Flint, Blocker & Boutin, 2011).

Kotler's model and these academic sources aided the team in being sure to include the customer through each step of the products development. The foundation of customer feedback that we received in step one of Kotler's model provided the team with a collection of market-led requirements for a product if it were to be made. The team then went about building upon this foundation by using the key features that the customer wanted to build a product that would match these requirements. The team also consulted with the customer through the product development process. With HYV, the team had created a product based solely on customer needs and wants. Following Ansoff or Roger's model, the team would *not* have been encouraged to acquire a

collection of market requirements because it is assumed that a product or innovation had already been created.

- **To recommend the use of a preferred marketing model for start-up teams that are in similar circumstances**

Kotler's model would work well in the similar circumstances that the MATE team found themselves in during the year. The team had set out to explore the potential and research the potential of new technologies and/or products in new marketplaces. This paper recommends the following circumstances to implement Kotler's model in a start-up business environment:

1. When exploring the early-stage potential for a new innovation, technology, business idea, marketing campaign, and commercial product.
2. When exploring a market without a pre-determined idea of a technology or business idea. If an opportunity is found in the marketplace, then ensure that the team you have assembled has the capability to build a product to address that customer need or want.
3. When seeking to commercialize a new researched technology that has yet to have a proven market or customer. As with 'nacre' and 'sound concepts', researchers had pre-determined ideas of markets that their research could be valuable, however it was only until the team gathered raw data from a potential customer in that market, that these assumptions were rendered invalid.
4. When in a small team with limited resources. The customer feedback gained through this model will provide a strong case for investment from angel investor or governmental groups as the commercial opportunity can be expressed through the customer's needs and wants. For example, being able to provide validated primary customer feedback to an investment panel is more valuable than secondary market data found on the internet.

### **Role/ Discipline Development:**

- **Explore the influence of a potential customer in early stage marketing decisions**

Kotler and Armstrong's marketing process model helped us to define our activities as a team during the year. It was a broad and flexible model that we applied to each case study. The team set out to explore the commercial potential of three different projects, which were all at different stages of development. Through this process, it became clear that the most significant step in the model was the first – understanding the customer.

A lot of the team's time this year was spent talking to prospective customers. In my role as the business development and marketing lead, I sought to get into the customer's mind-set to truly understand the markets they operate in. It was important for the team to understand a customer's budget restrictions, their purchasing power, their daily routine and how they go about their business. All these factors go towards building an 'end-user profile'. Aulet states that the goal of an end user profile is "to create a description of a narrowly defined subset of end users with similar characteristics and with similar needs" (Aulet, 2013, p. 52). As the business development lead, I sought to create detailed profiles for each of our potential customers.

The team had the most experience during this step of the model as we repeated it three times, once for each case study. It proved to be the most important step, demonstrated by the fact that we did not get past this step with the first two projects. We had invalidated the commercial potential of the 'nacre' and 'sound concepts' projects by simply gaining a better understanding of customer's needs and wants. Although this was a lengthy process, it is a valuable one to undertake, because if the team had not carried out this primary market research, it is likely that further resource would have been put towards product development without a prospective market.

For the third case study 'HYV', the team had gathered all the primary market research and customer feedback to create an innovative value proposition in order to satisfy the needs as described by the customer. The customer development process, as propagated by Blank, helped to guide me through the first step of Kotler's model, with the aim to gain a thorough understanding of the customer.

- **To explore and build practical experience in the marketing discipline**

Through my experiences as the business development and marketing lead, I was able to undertake practical activities of the marketing process as structured by Kotler's model. I called over 150 people from an array of different markets, built relationships with decision makers around the country and co-ordinated the promotional campaign of the HYV product. I have personally developed my skills in cold calling and call control. I believe these are vital skills for efficiently identifying and qualifying leads or market opportunities. Cold calling itself increases an individual's ability to be tenacious, outgoing and resolute. All of which are skills that are inherent in ambitious entrepreneurs.

Kotler's model stresses the importance of building profitable relationships with the customer. I have gained experience in nurturing a relationship from conception to partnership. Being able to connect to people, build rapport and being a trustworthy advisor can lead to strong relationships which could eventually become profitable. Yu (2001) asserts that the key is for the CRM effort to move beyond sales to include strategic planning or consultation. I followed Yu's assertion through my practical activities in the market, taking on a more consultative, forwarding thinking role when speaking with



customers rather than simply seeking a sale to signify the end of the relationship. As Lambert (2010) recognises, learning to managing those relationships in a business-to-business CRM context was of great benefit.

Returning to the American Marketing Association's definition of Marketing as "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large" (American Marketing Association, 2013, *Definition of Marketing*). I felt that my practical experience this year coupled with academic learning's has furthered my understanding of the marketing discipline.

### **Implications of research for theory/ practice in your discipline**

The limited time frame of the course added an artificial element to the progression of our business. The time frame did not allow for a full exploration of Kotler's model to the last step. A lot of the year was spent on the first step of Kotler's model, in identifying a potential paying customer. With the first two case studies, the team could have acted more quickly in making decisions as we had a pretty good idea of the marketplace after a relatively short amount of time. We went on to gather confirmatory data whereas we could have moved on to the next project, therefore allowing us more time to venture through each step of Kotler's model. An area for further investigation could include the use of Ansoff's Matrix Model within the last step of Kotler's model. This would require more of a longitudinal approach. It would allow a team to explore the evolution of a start-up business to a competitive commercial entity that is seeking new markets to exploit. The research could also focus on the importance of understanding the customer during this process and contrast this with the relationships developed at the very early stages of development.

A limitation of Kotler's model involved the lack of detail around the practical steps marketers can take in order to "understand the customer's needs", for example. This paper along with Blank's (2007) Customer Development Model, attempts to address the practical elements associated with uncovering these activities however, further research could be undertaken to examine and explore the practical activities required to establish profitable relationships with a customer. The team originally chose to follow Kotler's model for its broad and flexible application, further research could however explore a narrower approach for undertaking 'customer discovery' or the first step of Kotler's model.

## Conclusion:

This thesis demonstrates that the Kotler and Armstrong's Marketing Process Model is applicable to early-stage start-up businesses. The thesis validates the importance of understanding the customer before investing too much time or resource into further development. Over the course of the year, the MATE team had assessed the commercial viability of three different projects. As a result, the team established a potential business model based on customer feedback for a series of acoustic products for use in commercial office spaces. Kotler's model provided a customer-focused guideline to the team and for my own activities as the marketing and business development lead in the team. The thesis recognizes the importance of a marketer's role in establishing, maintaining and nurturing relationships with potential customers in order to drive and inform product development. The thesis recommends the use of Kotler's model to early stage start-up teams when exploring commercial options for a new technology or product, as it recognizes the importance of understanding the customer.

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## Appendix:

Figure:	Title:	Table:	Title:
1	The Business Model Canvas	1	Market Feedback 'Nacre' (New Zealand)
2	Timeline of the year	2	Market Feedback 'Nacre' (International)
3	'Nacre' Business Model Canvas	3	Initial Market Feedback 'Sound Concepts'
4	'Sound Concepts' Business Model Canvas	4	Commercial Office Space Market Feedback
5	'HYV' Business Model Canvas	5	HYV Market Requirements
6	Competition Diagram	6	HYV Temporary Office Space Market Feedback
7	HYV Brouchure including designer's logo	7	Competitor Products
8	HYV Prototype		
9	Flow-Chart of practical steps from identification to qualification		
10	Final HYV Business Model Canvas		