

Marketing Plan

[POWERMAT]



ETM 555 – Technology Marketing

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EXECUTIVE SUMMARY

Market Opportunity

The new generation technical product Powermat Wireless Charger is a wireless charging technology that allows us to charge multiple devices at the same time without any cords and adapters. Powermat transmits the electrical power wirelessly via an ultra thin mat embedded to other electronic devices. As per the statistics released by the Consumer Electronics Association (CEA), there are 25 electronic goods in an average U.S home and it is expected to increase by two and half times of the present day numbers by 2013. [9][10] This shows the market opportunity for our Powermat Wireless Charger as it is more convenient to have one for a house with such a huge number of electronic products where the hassle due to cords and wires can be completely released.

The Powermat wireless charger which uses the old concept of induction offers several advantages and benefits:

- Powermat can also be used to deliver data connectivity to the electronic device via Wi-Fi, WiMax or an Ethernet connection.
- Reduced power consumption and number of wires, increase in energy efficiency.
- It comes with light indicator; auto-shutdown and full battery check which is more convenient to the users.
- The advantage to the device is that it's wireless, so it can be placed on a counter, or on the floor or on a nightstand.
- It's more beneficial for people who are having more consoles, like the iPhone, iPods, Blackberry etc.
- Since there are no extra power chargers plugged in, much power is not wasted here. And also the Powermat system senses how much power is needed, and delivers it on demand resulting in significant savings.

Albeit, new technologies like Solar and Piezoelectric technologies are entering the market, wireless charging technology can be extended further by making deals with hardware manufacturers to get the service better and hence offer huge potential growth. [6]

Target Market

The target market for Powermat wireless charger is analyzed on the basis of usage from each segment. The different segments under consideration apart from customers are organizations and operators. So, the plan was to separate the market into three segments: techie people, travelers and gamers, family, and industrial customers.

So the target market for Powermat is likely to be the family customers as Powermat is trying to emphasize more safety issue which automatically attracts those parents who are always willing to pay for the premium service that give safety environment for their children. On the other hand, Powermat will fit in perfectly for industrial people where it reduces the number of wired chargers and space for their workplace. As of now, Powermat focuses more hitting families.

Competitive Advantage

Wireless chargers have several advantages over the traditional wired chargers. The advantages are less consumption of power, and energy efficiency. A study tells that Powermat wireless charger has proved to save about 35% in energy usage. Also, it draws very less amount of electricity once the device is charged to the full compared to the traditional wired chargers where the power loss is considerably more. [5]

There is not much competition in the market for Powermat as there are very few companies incorporating wireless charging which are almost of same specifications and price. Powermat has got the sleek design and portable facility compared to them which is definitely an eye-catching feature.

As the competing companies are coming with the same type of chargers, Powermat has got less competition and users has just two options: Powermat or others and also Powermat has got the patent rights and currently it is doing its own production so there is no fear of suppliers. Even though all competent companies have the same specifications, same price and almost same performance as of Powermat but the one thing that puts all others behind Powermat is the sleek design and the compatibility as it can be easily folded into a wallet which are the best competitive advantages.

Net Assessment

Based on the SWOT analysis, the strengths, opportunities, weaknesses and threats are quite significant for the Powermat wireless charger. The opportunities are vast and have got a considerable amount of strengths over others. Threats have to be managed via proper balance of the operational excellence and technological innovativeness. Weaknesses can be minimized as the product goes deep into the market which needs some time as it is brand new. The wise management of critical success factors and critical risk factors will improve the success of the business strategy of Powermat wireless charger. The following characteristics can be reflected by the Powermat as it dwells in the market with time:

- It could be the early industry leader
- Stylish and sleek design and Technical knowledge base
- Mobility and low power consumption
- Could work directly with phone manufacturers to go non-adapter
- Powermat's market's having Industrial users by a great margin

Marketing Strategy

As of now, no real market existed for chargers as chargers were included with the battery driven products till now and also chargers came up with no option for a user. Now that, wireless option is being delivered with the chargers, the user has the ability to decide and thus the market will emerge. As Powermat's market is new and running with long-term growth prospects, the idea of adopting blue ocean strategy which will distinguish Powermat from its competitors (although almost less) which will lead Powermat to a promising future market. After applying Porter's five forces, the next decision was to launch the product with a differentiation strategy. Right now the product is a bit pricy but that's common for new products. Powermat products will provide dual advantages as it offers a central and stylish place to locate and does the charging too by eliminating ugly wires. It is also necessary to be

prepared for other companies that may follow us in the market; it can be tackled by keeping focus on research in increasing the efficiency, decoration. Powermat's final plan is to cooperate with sales locations and phone manufacturers thus excluding other competitors from the market.

Powermat is a brand new product and we would like to set up a separate department for customer service which delivers a premium service for all customer demands. Additionally, we guarantee a warranty of two years for Powermat and we are also looking for providing Powermat in a unique packing. We are trying to apply some focus on research & development in order to push our competitors back. This includes making it adapter free and universal charging device which is compatible with all types of devices (phones). We made ourselves unique with the features 'wireless' and 'decoration' also we entered the market very recently so we find ourselves in the early market in the Technology Adoption Life Cycle (TALC) so, we need to cross the chasm to dwell into the market.

As stated above, we provide service so the price is a bit high at this point of time. We also like to make partners and alliances with some manufacturing companies like Apple, Research In Motion (RIM) and Blackberry so that we can provide lower price to customer thus by encouraging the customers to buy our products. It will create some losses at the beginning but indeed is an excellent marketing idea especially for new products like us which doesn't have the enough recognition among the customers. The next step in taking forward our product to the customers is pairing up with distributors like Best Buy, Office Depot, Staples, amazon.com and Sears etc which will exhibit our product in a conspicuous place and recommend to customers. We're also looking to advertise our product in newspapers, magazines and websites which creates an exposure useful for the increase in sales of Powermat. We're thinking of promoting our product through conventional medium television, on internet through our official website, through Consumer Electronics websites, tradeshow and social networking sites like Facebook, Twitter, MySpace and YouTube. Our promotion through conventional medium television shows Powermat charging iPhone, Blackberry and Nintendo DS etc without cords where the main emphasis is on technology, convenience and appearance. Powermat's official website also provides a lot of information about everything one needs to know about Powermat.

BUSINESS OVERVIEW

The wired chargers have always been a problem for the most of the people. It is very difficult to find the right charger. One such problem-solving product is power-mat wireless charger; this is one simple charger that will charge almost any kind of electronic item present at your home. There are many things that this device can do and one would have to say that it is amazing.

Powermat makes use of the Electromagnetic Induction technology to build the Powermat wireless charger. The Business Overview will provide information about Powermat, as the company background, and about the product itself, the Powermat wireless charger.

Company Overview

Powermat is a revolutionary wireless charging technology designed to get rid of bulky chargers and tangled wires using inductive coupling. It allows us to charge multiple devices on one Powermat without cords and adapters.

Powermat primarily has the following business segments: Home and Office Mat, and Portable Mat.

- The Home and Office Mat wirelessly charges up to three Powermat-enabled devices at the same time, which includes a mat; a Powercube, 8 Powercube tips and one USB power port.
- The Portable Mat also wirelessly charges up to three Powermat-enabled devices at the same time with a mat, a Powercube, 8 Powercube tips and a travel case.



Figure 1: Overview of Home & Office and Portable Mat

Business Challenges

In January 2009, in a Consumer Electronic Show, Powermat declared that it is going to introduce its wireless charger in fall season which aims at providing technology and convenience to people who are fed up with traditional and ugly wired chargers which requires a lot of wires and plug-in points to charge their devices. As it is a new product, they have to spend a lot on unique design and marketing which is common for a new product but with a long term prospective.

Market Position

Powermat introduced the wireless charger in to the market a few months ago and it's less likely to hear about the response as it is brand new and have to wait for this quarter end to know the response of the product but there is no doubt about the performance and decoration of the product which are rare traits for a charger. In the mean time, we are looking forward to develop the technology to overcome the limitations of the product to make it unique in the industry.

Competitive Strengths

As there are only two companies besides Powermat, the competition is very less and also it can be overrun by the sleek design which is the comparative strength along with the premium performance. Also, as the specifications, performance and technology are almost the same with the competitors too, there is absolutely no choice for buyers and suppliers as Powermat alone can produce and market its product. The next competitive advantage for Powermat is decoration. Among all the available wireless chargers, Powermat is the most beautiful and sleek one. So, decoration stands among one of the competitive advantages. Powermat can be folded into a wallet and can be taken anywhere with us. Its design is so compact that it became one of the major attributes of its growing publicity which will definitely leads to its success. Finally, these are all the advantages of Powermat which leads the race with all others lacking these features.

Competitive Weaknesses

Any company in a competitive world will have its own weaknesses; similarly we have two weaknesses at this point of time. The first one is the growing number of adapters as the device requires as many adapters as many devices along with the pad. However, the efforts to team up with phone manufacturers helps in reducing the cost along with the ongoing research to make it adapter less will help overcome this problem. Furthermore, packaging can also be considered as the competitive weakness of the Powermat which because it can only be bought along with a Powercube which makes it a bit pricy than others.

Business Opportunity

We, Powermat entered the market as a start-up company by incorporating old technology into a new device which has never been designed and introduced before. So, the market is still open for this stream and which gives us a lot of opportunity for business. We have our own advantages which makes us unique amongst the different wireless charger companies. We need to work on some aspects like research and linking up with phone manufacturers to become the leader in the market in our stream.

Product Overview

Powermat is a 2 part system pairing a sleek, ultra-thin mat with receivers that attach to your device, enabling you to charge by simply placing those devices on the mat. It wirelessly charges up to 3 Powermat-enabled devices simultaneously along with an USB port.

This works with all Powermat receivers. The Universal Powercube with 8 tips is included to enable you to charge hundreds of different devices. It includes a Home & Office Mat, a Universal, international

power supply (Energy Star level 5, 100-240V) with built-in cord management and a Powercube Universal Receiver with 8 tips. The Portable Mat includes the same with a Travel case with magnetic closure.

Each plate has a small LED light in the front which turns on when a device is charging. The unit also makes a sound when something is placed on, or taken off, the mat. As well as the mat, we'll need receivers for whichever devices we wish to charge. The company has released specialized covers for a few devices such as the iPhone, BlackBerry and Nintendo DS, as well as some more generic adaptors. Small magnets are used to hold align the receiver which also contains an RFID tag to tell the mat what type of device it is and what the power requirements and levels are. People who are not having iPhone or BlackBerry can opt for Powercube and iPod dock accessories. The Powercube is a small receiver ending in a mini-USB plug and also includes a selection of other heads for charging a wide variety of mobile phones and other gadgets, while the iPod dock allows us to charge just about any iPod or iPhone around.



Figure 2: Sketch of Powermat & Powercube

Value Proposition: "Ready to lose the cords? Pick the Powermat system that's right for you!"

The value proposition is generated to address the features and value drivers for our target customers. "Ready to lose the cords? Pick the Powermat system that's right for you!" Powermat's theme is itself suggesting that the product is designed for lessening the hassle and improving the comfort zones. It is about creating superior performance and smarter designs. But more important, it is about meeting the specific needs of the customer.

The key features, advantages and benefits are already discussed above and the key values that are unique to Powermat wireless charger are technology push, convenience, competent technology, and innovative product design, including cost.

Brand Identity

Powermat wireless charger entered the market in October 2009 and soon it caught the eyes of many. Many reviews rated it as the “wouldn’t say no to Gadget” as it is a new gadget with an old technology which has just entered in the market. According to some studies, it is rated as the reliable product.

It entered the US market lately than the UK market, even though many people are aware of this product and are waiting eagerly to own this one where price is not a concern. Most of the target customers for our product are techie people, frequent business travelers, and families having more gadgets. Furthermore, outside of the corporate brand identity, wireless chargers are establishing a brand identity of their own.

Let’s look at some of the reviews for this Powermat Wireless Charger:

- Fun Factor: *****
- Geek Factor: ***
- Value: ***
- Overall: *** [33]

Jan 10, 2009



“Powermat will change everything with wireless charging.”

“Powermat is going to be huge. The idea is simple; just place a device like a phone on a Powermat and your phone are charged. There is no need for lots of wires or numerous power adapters; you just need a mat and a device...” [8]

Nov 13, 2009

TIME

Tech Buyer's Guide 2009

“In a perfect world, we'd never have to plug in our handheld devices to recharge them. That gadget-reviving utopia is still a few years away, but in the meantime, Powermat offers the next-best thing with its Portable Mat and Home & Office Mat...” [8]

Nov 18, 2009



TechRepublic's Geek Gift Guide 2009

“The gadget that seems to have captured the lion’s share of the geek imagination in TechRepublic’s Geek Gift Guide 2009 is the Powermat wireless charger, which recharges your other electronic gadgets, like the iPhone 3G S for example, wirelessly using magnetic induction. That’s what I said, magnetic induction. Just try to get a more geek-worthy gift than that for around \$100...” [8]

Because energy conservation and cutting down the cords respectively are being embraced by all people, devices/chargers that address these value drivers will become increasingly popular over the next five years.

Conclusions

In conclusion, we can say that the wireless electric charging offers a great opportunity:

With Powermat the project has a very strong driving force as a background. Powermat's revenue is mainly from selling the Powermat Portable Mat and Home & Office Mat. With the release of the new product "Powermat Wireless Charger", the market share is expected to increase further as this introduces a new technology, all the features and benefits like wireless, energy conversion, safety etc that is better than other competitors like Powercast etc. With all the ratings from different reviews, Powermat has established a strong brand value among the customers and competitors in the market. Powermat will also make use of the huge customer-billing database (CRM) for its promotion and towards building a strong marketing strategy.

TECHNOLOGY ASSESSMENT

Product Technology

In order to create a cleaner, safer, more efficient, and environmentally compatible alternative to the current wire in use, PowerMat began construction on the first “House Without Wires” venture [1]. The new design of this wireless charging system uses wireless power. The wireless electricity idea is based from the concept discovered by physicist Michael Faraday, in 1831, known as electromagnetic induction. Faraday hypothesized that by changing a magnetic field can induce a current in a nearby circuit. [2] In connection with the design of wireless power, an inventor Nikola Tesla discovered that the current flowing through a group of wires can induce current to flow in another wire nearby. [3] Utilizing principles of magnetic induction, Powermat designed a product that is able to transmit electrical power via an ultra thin mat embedded to other electronic devices.

Technology Description

The design of Powermat consists of a charging mat that transmits electrical power via a layer of an ultra thin mat to electronic devices placed on the mat’s surface. Inductive coupling transfers energy from circuit components inside the charging powermat to another receiving end of an electronic device through a magnetic field. The technique used in switching power supplies established from a shared magnetic field which provides a power source to be transferred. Each charging mat has an ultra thin transmitter which transmit a magnetic field generated in an embedded coil matrix to a received attached in the electronic device. Regardless of whichever electronic device is used, the charging mat is designed to be customized and scalable to fit any receiver’s requirement. [4]



Figure 3: Powermat uses the principle of magnetic induction to deliver wireless power.

Inside each Powermat charging mat, there is a receiver location detection software embedded in the form of an embedded coil matrix. Each coil can be activated to send power to a specific device. As receiver is placed on the mat, a processing unit on the mat determines which coil should be activated, information is transferred between the mat and the receiver. Once the receiver is identified as a Powermat device, the receiver relays the amount of power required, and the procession unit activates the specific coil and transfers the required power to the receiver. [4]



Figure 4: Receiver unit on electronic device.

Each receiver unit, once connected to Powermat charging mat, it sends signal to the processing unit which continuously monitors for the presence of a receiver. Once the processing unit detects the presence of a receiver, the coil in the mat powers on and charges the electronic device connected to the receiver wirelessly. The charging mat works simultaneously with all of the embedded coils which allow multiple receivers to be detected and charged at the same time. However, once a receiver is removed from the charging mat, the processing unit will detect the removal of the receiver and stop the power transfer immediately.

Product Platform

The Powermat charging product is a newer generation of the traditional wired charger. Powermat can be offered in different platform depending on the requirements and regulation of devices. The mat and receiver are designed to meet relevant regulations specifically for electronic devices used in the United States, Europe and Japan. In order to make Powermat safe and radiation-free for the end-user, certain design of the software controlling power transfer and power efficiency needs to meet requirements of the electronic devices. [4]

SPECIFICATIONS:

Charging Positions:	4 (3 wireless, 1 USB port)
Dimensions:	.625" x 12.25" x 4.5625" (HxWxD)
Input Voltage:	100-240V AC, 50-60Hz Universal
Output Voltage:	18VDC
Output Current:	0.83A
Standby Current:	0.011A
Adapter Power:	15 Watts

[4]

Competing Technologies

Powermat is capable of transferring power via an invisible access point in real-time to numerous electronic devices. This plug and play product is currently one of the most promising wireless devices targeted to collaborative working environments and home environments. The wireless charging technology is not the only technology to emerge. While there are other technologies such as solar and piezoelectricity, but wireless power is the only one ready to enter the market for portable electronic devices.

Features, Advantages, Benefits Analysis

Extra Features

In addition to the wireless charging ability, Powermat can be used to deliver data connectivity to the electronic device via Wi-Fi, WiMax, or an Ethernet connection. Also, it could connect to analog audio speakers wirelessly. [4]

Benefits and Advantages

The benefits of the Powermat wireless charging system are mainly based on reducing the number of wires connected to an outlet and also reducing consumption of power. In comparison to the traditional wired chargers, the Powermat device proved to save about 35% in energy usage. Once an electronic device is fully charged, it reaches an idle stage, but it still draws power from a power source. Similarly, Powermat does draw power but the amount is very minimal in standby mode. Powermat is built with an advanced power management system to maximize energy efficiency. As tested, the Powermat system drew less than half the watt in standby mode compared to other wired charging devices. [5]

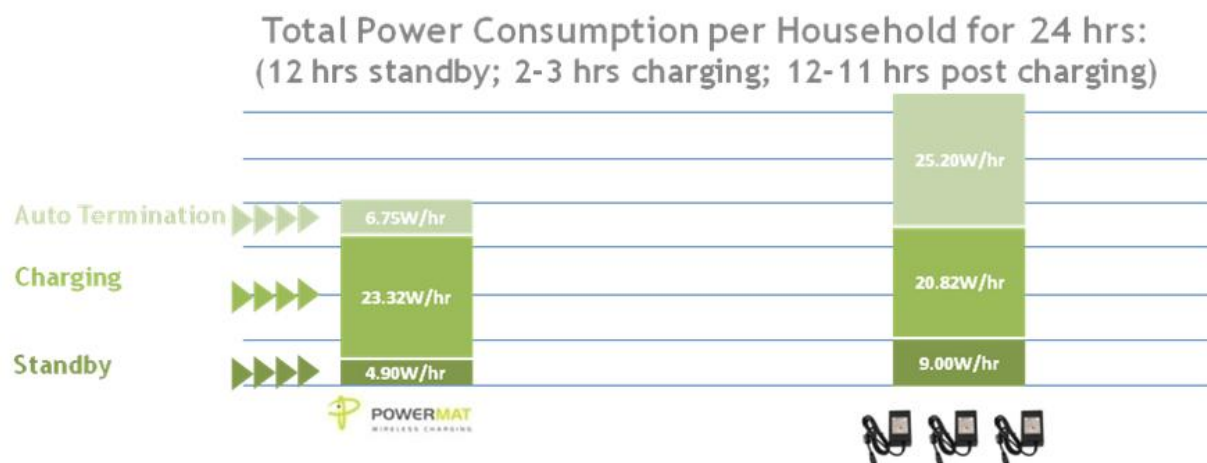


Figure 5: Power Consumption of Powermat versus Wired Chargers

As the product consumes less power, operational cost savings come as well. For instance, if Powermat consumes less than 50% of wattage compared to other wired chargers, the cost of electricity cuts in half as well. Environmentally, reducing power consumption contributes to a greener world.

Potential Disruptive Technologies

In addition to wireless charging, there are other technologies that can pose a threat. Other potential ways to power electronic devices include solar technology, piezoelectric technology, and RF technology. As solar cell acts as a great alternative to batteries in electronic devices that consumes less power, such as handheld calculators, LED flashlights, etc, but solar power is not able to reach the same level of performance devices using wired power or battery power. Therefore solar power is not able to compete in the market of chargers for iPhones, Blackberry, etc.

Another alternative way to powering electronic devices includes piezoelectric technology. According to a professor, Zhong Lin Wang, crystalline materials put under mechanical stress can produce an electrical potential. [6] In application to powering electronic devices, there wouldn't be a need to charging if the device has its own nanoscale self-powering technology. However, this nanopiezoelectricity technology has just emerged and there is still much more research to be done before it is ready to enter the market.

Lastly, Radio Frequency (RF) is another technology that poses a threat to Powermat's wireless charging technology. Small sensor devices can be places a few meters away and still operating by consuming a mW or few. [7] However, the technology has not been able to transfer the appropriate amount of power to electronic devices such as mobile phones. There is still room for the technology to improve before it could be applied to portable electronic devices that consumes greater amount of power. Although RF technology has existed long ago and has been applied to small RFID devices, but it needs further research before it enters the wireless charging market.

Conclusion

Currently, wired chargers dominate the market. But as people realize that other alternative ways of charging is available, they will soon adopt them. Powermat has recently been released and not many people have even heard of the product. According to a survey conducted (see survey in Appendix), less than 40% know the existence of Powermat. Since it has just been released, it will take time for users to adopt. Clearly, based on the power consumption statistics, and wire-free environment, the Powermat wireless charging device is a great alternative over traditional chargers. Once more people are aware of the product, Powermat will reach close to the same level of acceptance as wired chargers. As for other technologies that may disrupt this wireless charging device, there needs to be further improvement on the performance and research conducted before these technologies are ready for the market. Again, the capability of charging electronic devices wirelessly in the Powermat is the greatest alternative to wired chargers, simply because it is currently refined and available and proves to have greater benefits to power consumption.

MARKET ANALYSIS

Overview

Since Powermat is new in the market, absence of relevant information and defining the right target market are necessary. Market analysis helps the company to understand the needs and wants of customers and be able to determine the most effective market for the business.

Business Segments

Powermat is a revolutionary wireless charging technology that allows users to charge multiple devices on one Powermat without all the cords and adapters. [8] Powermat satisfies for both individual or group needs. At the same time, group of people in a family or industry may use Powermat as a way to reduce the number of chargers needed. The product will satisfy different customers with different needs.

Current Market Demand

With the full demands of personal and portable electronic devices flooding in the market, people have begun to feel the need for a convenient means to recharge them. Yet, several chargers and wires are making life more complicated. Wires are a burden in terms of cost and maintenance. However, numbers of competitors developing wireless power applications are increasing. This means that it would be a good opportunity for this product in the market. Since people have increased their demand in power, wireless charging pad is a promising product that will facilitate the use of all personal electronic devices.

According to the Consumer Electronics Association, the average U.S. household now owns 25 consumer electronics products. [9] It's also estimated that by 2013, the average U.S. household will have two and half times as many digital media devices (computing, gaming, consumer electronics, portable and wireless devices) in use as in 2008. [10] It implies that a billion of households have to deal with wires for their electronic products. Most importantly, in today's world, an electronic device that has become an essential thing in our life is mobile phone. We can say that every household has at least one mobile phone. Moreover, researches show that the number of mobile phone users will be increased every year. For example, according to ResearchInChina, the release of a new report on Global Smart Phone Market & Industry Chain Report 2008-2009, the global mobile phone shipment was totaled at 1.213 billion in 2008, up 6.7% year-on-year. [11] The global mobile phone sales recorded at 305 million in Q4, 2008, declined 4.7% compared to the previous quarter; it was the first decline happened in the 4th quarter since 1999. [11]

Since the numbers of mobile phone users keep rising every day, the need of wireless charger is higher. According to PR Newswire Market Research in 2007 to 2008, Consumer rank wireless power charging in top 20% lifestyle demands. The research states that more than 80% of consumers surveyed see wireless power as something they would use with virtually all of their electronic devices and they expect to use it every time they charge them. [12]

Moreover, a research found that over a third of iPhone users carry a second phone, which mostly are smartphones. According to new report by Rubicon Consulting, from 460 randomly iPhone users, 36.4

percent carry a second device and which belongs to Blackberry at 9.8 percent. Another 6.1 percent fell for Windows Mobile device and 6.6 percent are using Motorola RAZR. [13]

With an increasing number of electronic users and development of technology, the majority of today's offices and households do not provide adequately outlets or extension cords. It is obviously seen that there are plenty rooms for wireless charging in market. Powermat is one of the competitive producers that is able to make great opportunity and large profit in this market.

Market Segments

Market segmentation analyzed potential buyers for the businesses in order to generate the maximum profits. The Powermat potential customers can be categorized into four groups, which are techie people, travelers and gamers, family, and industrial people. Each target will be analyzed deeply to understand the value for each market.

Techie People:

With the wireless technology, Powermat attracts techie people who love new technologies and design. The techie is an early adopter who must have the latest and greatest devices. They want to be in the know people about the new technology. Powermat provides leading technology to keep techie people up to date.

Travelers and Gamers:

For the travelers and gamers, constantly of batteries is what they need to keep their way of life. Carrying multiple chargers seems to be a problem making their life complicated. People have to carry separate chargers due to different devices. Life would be easier if people take Powermat, which is flexible and mobile.

Family:

Family needs safety devices that every member can rely on. Parents want to avoid their kids dealing with electricity. Powermat offers convenient and safety charger that keep people safe in every household.

Industrial Customers:

In contrast to business customers, industrial customers are more focused on number and purchase in larger quantities. They assess in more details and involve more than one person in decision process. These attributes apply to organizations such as manufacturers and governments as well as resellers and institutions. Powermat keeps their portable electronic devices organized. Industrial people can access their devices easily and safety.

Customer Value Drivers

Even though customers are segmented in different market segmentation, all of them share similar needs in term of product values. Powermat offers significantly value among competitors. It seems to be more or less necessity that product must enable feasible usage convenience and ease-of-use. With the wireless technology and excellent design of Powermat charging pad, the design provides magnificent aspects in safety, ease of use, and environmental friendly usage.

The Powermat charger is very convenient and flexible product that consumers can take it along everywhere they want since the mat is able to roll up and no cords or adapters are needed. There is no direct contact to the electrical outlet. The electronic device will be charged through the pad in which guarantees the safety for every user, including disabled, and children. This application helps to reduce potential risk of danger such as body injury from electrical shock, or property damage. The product uses less power consumption than wire charger. In addition, it provides more tidy workplace environment that portable electronic devices are placed in one location. There will be less chance of maintenance issue on the port and plugging since the damage always occurs when the cord was removed.

However, to be competitive in the market, Powermat differentiated themselves from competitors and aimed to focus on niche market.

Target Market Selection

Family is the most attractive potential target for Powermat. Since family wants a product that satisfies their needs in term of safety, Powermat fulfills that needs with the great design and safety function. The company tries to distinguish itself from competitors by focusing more on safety issue and add more value in term of design. Therefore, Powermat is combined with home décor furniture to creates more safety and better environment for household. .

Potential New Markets

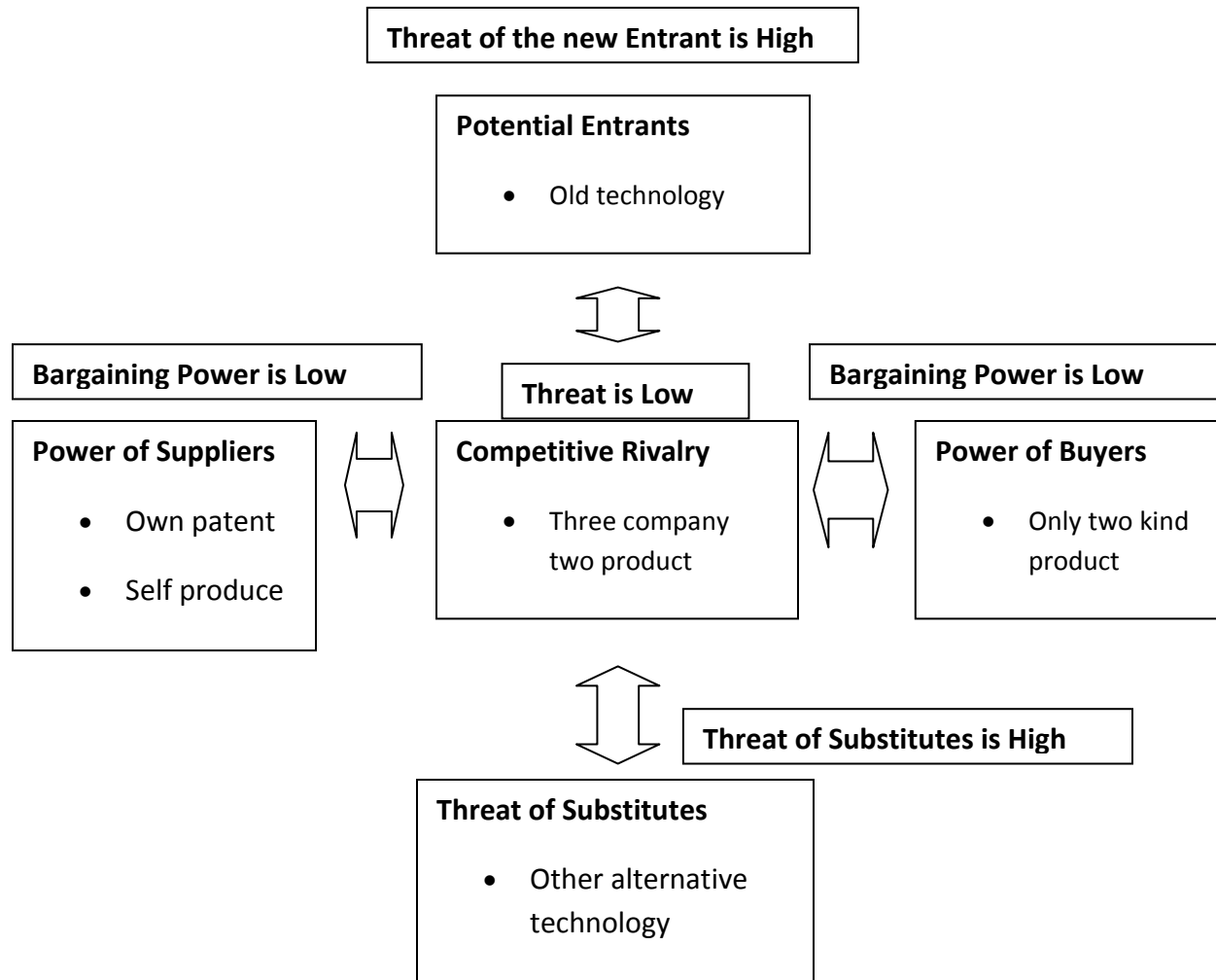
Yet, family is the main the attractive market, industrial market has potential as well, all in which allow Powermat to generate profit. Since Powermat charger is convenient for organizational usage by adding more environmental friendly and safety in workplace, the organizational users have much potential to buy products in large volume that helps Powermat to generate market share in the business and gain profit. In order to do that, the product could be customized depending on the size and demand of workplace.

Conclusion

The market analysis refines the business overview and the current market of the wireless charging guiding the company how to formulate a practical marketing plan. The market segmentation and the analysis of the future potential customers are analyzed to point out the most attractive target the Powermat should focus on at this point of time.

COMPETITORS ANALYSIS

Porter's five Forces Analysis [14]



Competitive Rivalry: Threat is Low.

There are only two other companies (pure energy solution and P&G) that provide similar products (Wildcharge which is brand name of pure energy solution, and Duracell myGird) with Powermat. Moreover, those products have almost similar specifications and prices. Pure energy solution has more adapters (such as power-dice). Even though the Wildcharger commercialized in 2007, they had just one adapter in that time. Recently they are increasing types of adapter, and also the Duracell myGird is recently into the market. So nowadays no one has strong market share. More over many other companies has wireless power transfer technology and success to make the prototype, they do not have plan into the same market with Powermat yet. They just sell their technology, or their device is not a multi charging device. Therefore, Competitive Rivalry level is low.

Potential Entrants: Threat of the new Entrant is High.

Electromagnetic induction technology is used in the product which makes the technology too new. it is commonly used in many areas such as electric toothbrushes and wet/dry electric shavers. So it can be easy to get technology license. Some companies sell their technology license at a low price. Wipower (<http://www.wipower.com/product.php>) is a good example. Now it just sells their Design Kit (\$4,500). But when purchasing the kit, they allow other industries to use their wireless receiver technology license for free. Moreover, only three companies currently have products that provide multi-device-wireless charging pad and clearly it is easy for these companies to enter into the market. One of the passable and strong competitive companies is the Fulton Innovation, a division of Alticor and a sister company of Amway. They named their wireless power technology to "Ecoupled." Although a Universal Pad hasn't been commercialized and there are no plans in the future to design multi-devices-wireless charging pad, it has the ability to enter into the market anytime since it already has a prototype, and strong brand value and distribution channel with the sister company which is Amway (a direct selling company and manufacturer that uses multi-level marketing to sell a variety of products, primarily in the health, beauty & Home care industry in the world. [15]). Therefore treat of the new entrant in the market is high.



Figure: 6 Wipower Design Kit



Figure: 7 Ecoupled's Universal Pad

Threat of Substitutes: Threat of Substitutes is High.

Electromagnetic induction technology is not only wireless power transfer technology, also there are other possible or existing technology such as RF tech. The Powercast Inc. already commercialize wireless power transfer chips which is used in RF technology. Although they have overcome Powermat's limitation of distance, but the output power is too low compared to magnetic induction technology, but still it is one possible alternative technology. And recently Sony had succeeded with the high voltage (enough for TV) and better distance wireless power transfer. It is overcome the limitation of Powermat.

Power of Buyers: Bargaining Power is Low.

There are three companies' products, and two products are almost same function and price. So basically the wireless charging market has two kinds of product for multiple devices. Therefore, buyers have just two choices now: Powermat or others

Power of Suppliers: Bargaining Power is Low.

The suppliers' power is not necessary to Powermat because it has own patent, and it can produce its products itself.

Compare with competitive products in current market.

Two other companies commercialize the wireless charger. There are the Pure Energy Solution and the Procter & Gamble (P&G), and their product names are the Wildcharger and the Duracell myGird. Although Wildcharger and the Duracell myGird are almost same, still they have small difference they has different exclusive adapter. So in the competitive products analysis this paper compares both of products like different product. All of wireless charger products have similar efficiency, and spec. they have just different prices, component of the packages, adapter types and sizes. All of them have Exclusive adapters for I-Phone, I-pod, Blackberry, but Duracell myGird does not has Universal adapter, and Powermat does not has Universal exclusive adapter except Nintendo DS. In the price overall Powermat's products are expensive than competitive products expect blackberry exclusive adapter. All competitive companies provide discount when purchase adapter with pad like package deal, but Powermat has only one type of package which include one Universal adapter and one pad. Also it doesn't sell pad only dislike with others.

	Wildcharger	Duracell myGird	Powermat
Pad –only	\$49.99	\$49.99	Not sell pad only
Exclusive adapter for I-Phone, I-pod,	\$34.99 or \$79.99(+pad)	\$34.99 or \$79.99(+pad)	\$39.99
Exclusive Adapter for Blackberry	\$34.99 or \$79.99(+pad)	\$34.99 or \$79.99(+pad)	\$29.99
Universal exclusive adapter for others (such as Nokia, Motorola)	\$39.99 or \$79.99(+pad)	\$39.99 or \$79.99(+pad)	\$29.99(just only for Nintendo DS)
Universal adapter	Powerdisec : \$19.99 or \$64.99(+pad)	None	Powergube: \$29.99 or \$99.99(+pad)

Price of different types of wireless chargers[16][17][18]

Other passable compactors

Although Home décor companies are not exactly in the market with the multi device wireless chargers, but it can become one of the compactors. One purpose is to arrange these multi-device-wireless chargers in house or office appliance. Even though it is not wireless, Home décor companies already sell those kind of charging stations. See Figure below.



Figure: 8 Wood Charging Station in Cherry by Kanga Room: \$74.99

In the wireless charging market, Fulton Innovation which is mentioned, will become a huge compactor in the future even though it is not in the multi-device-wireless charging market yet. It has larger advantages than powermat. It has bigger company size, distribution channel, partnerships, and better technology. According to the their official web page, Ecoupled system's (name of Fulton Innovation's wireless power transfer system) efficiency is up to 98 percent, and it can support up to 120 Voltages and 1.4 kW. [20] Powermat is 85% and 15W [16]. Fulton Innovation has over 220 patents filed and pending on the eCoupled system. Moreover, it already has partnership with many famous companies in their areas. Bosch, Energizer, Herman Millar, Motorola, Texas Instruments, KI, and Leggett & platt are its partner companies, moreover, they already successfully developed many products with the partners such as laptop computers (Dell's Latitude Z which is first wireless charging laptop) power tools (Bosch eCoupled power tools), wireless charging hand flash(with Energizer), office or home furniture inbuilt wireless power transfer system(with Herman Millar and Leggett & platt). With our partner strategy and extension strategy, we can have similar partners similar with Eco coupled system. Therefore, in the future, Fulton Innovation could potentially become the most competitive company even more than current competitors.



Dell's Latitude Z



	Bosch ecoupled power tool
 Energizer	 KI's business-counter

Figure 9: Examples of Products from Potential Competitors

NET ASSESSMENT

SWOT Analysis

Strengths (Positive Internal Factors)	Weaknesses (Negative Internal Factors)
Small size offers maneuverability Technical knowledge base Stylish design Early leader in the industry Low power consumption	Small size limits capital availability Small size minimizes brand image Inexperienced sales force No loyal customers
Opportunities (Positive External Factors)	Threats (Negative External Factors)
Displace plug-in module units at high-end stores Support industries that use many similar devices.	Better form factor More efficient charging designs Non-Adapter charging

Strengths

Mobility

The small size of the company offers a level of maneuverability that larger competitors do not enjoy. The decisions for the marketing and technical plans rely on the input of fewer people within the organization. This removes a level of complexity that often slows down the speed of development and delivery. This is a strength that should be utilized to gain an advantage against our larger competitors.

Technical Knowledge Base

Another distinguishing strength is the high level of technical expertise the company possesses. The need for a strong physics and electronics knowledge base provides a barrier to entry against potential competitors.

Stylish Design

The company combines strong technical advantages with creative design to offer charging stations in a variety of home décor options. They offer sleek minimalist models that appeal to the tech-savvy group, as well as tasteful wood-based platforms that appeal to the sensible home decorator.

Early Industry Leaders

An added strength is the company's early leader status in the industry. Wireless charging is a new industry. No standard has been set yet so there are big potential rewards for companies that take the early lead.

Low Power Consumption

The electronics-based charging technology employs smart design features that put the charging station into an auto-termination mode when the device is not in use. Traditional chargers are always on. This results in a substantial power-savings over plug-in models. This important strength provides a technical and environmentally friendly selling point for the device.

Weaknesses

Limited Capital Availability

The small size of the company limits the amount of available capital. Selling stock is not a viable solution because the company is unheard of in the investment world. The financials are not strong enough to convince investors to infuse capital into the company. Likewise the small size limits the amount of collateral and subsequent loan size. In startup companies there is rarely enough cash to use as a down payment. Venture capital money is available, but this is limited at best. Large competitors can rely on cash from other internal products.

Lack of Brand Image

Unlike larger well-known companies, Powermat cannot rely on an existing brand image. This will affect both product placements in stores, as well as customer purchasing decisions. "A simple effects test showed that in high-risk conditions, product evaluations were more favorable in response to strong (versus weak) corporate arguments." i The Powermat clearly falls into the high-risk category, and as such would greatly benefit from positive corporate statements. These corporate statements carry more weight when delivered by companies with strong brand image.

Inexperienced Sales Force

As a startup company, Powermat does not have an extensive sales network to rely upon. This lack of experience can result in missed opportunities. It can also close the door on potential opportunities. Many large distribution channels may shun doing business with companies that are new to them. Experienced sales teams either know how to get around these barricades or have contacts that make these barricades irrelevant.

Lack of Loyal Customers

Being early industry leaders means the company also relies on early adopters for many sales. They have no dedicated customer-base to produce revenue streams. Loyal customers provide a base-level of revenue that companies can use to evaluate new technologies.

Opportunities

Plug-in Module Alternative

There are currently many high-end home décor plug-in stations aimed at reducing the clutter of wires. These solutions offer customers a charging solution in an attractive package. This is an excellent opportunity for Powermat to displace the current technology and gain market share. The concept of wireless charging inherently offers customers the clutter-free space they desire.

Industrial Users

The rise of smart devices is changing the way service businesses operate. There is a growing opportunity to service companies that use multiple smart devices in their business arena. This is different from business users who take their device with them. These devices are used at the needed location and are subsequently charged on site when the work day is over.

Threats

Form Factor

One of the main outside threats is a competitor developing a product that has a more desirable form factor. The effect of a trendy design cannot be understated. Apple has differentiated themselves not only on performance, but also due to the style of their offerings. A trendy competitor design would force Powermat into a follower mode.

Better Efficiency

As technology gains are made in wireless charging there is a very real possibility that a new charging concept will provide a more efficient solution. This threat could be amplified if the nascent green movement continues to grow.

Adapterless Technology

Another significant threat is a competitor developing an adapterless product. The biggest drawback to buying a Powermat is the necessity of purchasing an after-market adapter to make the charging solution work. Customers want simplicity for the money they spend.

Key Success Factors

The biggest success factor is staying focused on technology. Being an early entry into the wireless power market can translate to market share wins, but if Powermat doesn't stay ahead on the technology curve these gains will vanish. Increased efficiency and adapterless designs provide the biggest opportunities while offering the greatest threats. If a competitor solves these problems, Powermat will find itself lagging instead of leading.

The easiest way to stay ahead of the technology curve is to partner up with a major electronics manufacturer to develop an adapterless solution. This type of solution will require intimate knowledge of the partner's design. This will provide a barrier to entry while making the Powermat more attractive.

Recommendations

There are obvious opportunities for the tech savvy users, but this market may not produce the volume and margins Powermat desires. Entering into the home décor market provides an avenue to generate high margins. This opportunity requires teaming up with a current company that sells into this market, or developing the form factor necessary to compete.

Powermat should also look at the emerging market that is growing for industrial users. These companies have fleets of devices that need charging at the end of work shifts. This provides an opportunity to create a new Powermat capable of charging many devices at one time.

MARKETING STRATEGY

Strategy platform

Growth Strategy

In general, chargers are basic devices for every battery driven product. In the past, a charger was directly included when a battery driven product was bought. Therefore, no real market for charger has existed. So far, there have been no options for a user in the charging device. However, this is different now. With the wireless option, the user is able to decide and as a result, a market has emerged. At the moment this market is young and new with long term prospective of growth. Hitherto, the market is characterized by small, unknown brands which could all be categorized as start-up companies.

Based on this situation we will focus on a blue ocean strategy as the wireless charger is a totally new product, but all devices which could be charged with it have been out in the market for a while. We will have to focus on a different market and different consumers than the traditional wire based charger because otherwise there will be no market for us. However, doing that will lead to a promising future market. Moreover, charger, in general are a well know technology, so user will know about the basic values. The only thing which is new is the fact that there is no wire and that it could be used for more than one device.

With respect to the Ansoff Growth Matrix we position our product in the field of “Diversification”. As presented above, there has not been a market for charger, yet. Additionally, the wireless technology for charger is new which corresponds directly to the diversification field.

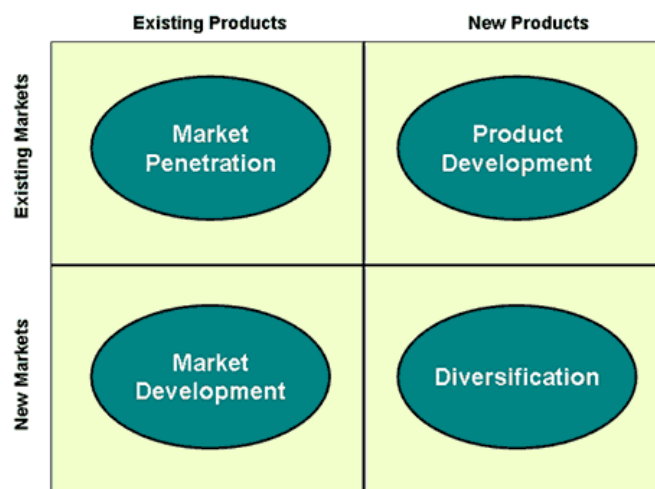


Figure 10: Ansoff Growth Matrix [22]

Differentiation Strategy

With reference to Michael Porter’s generic strategies, which are shown in the figure below, we plan to launch our product with a differentiation strategy.

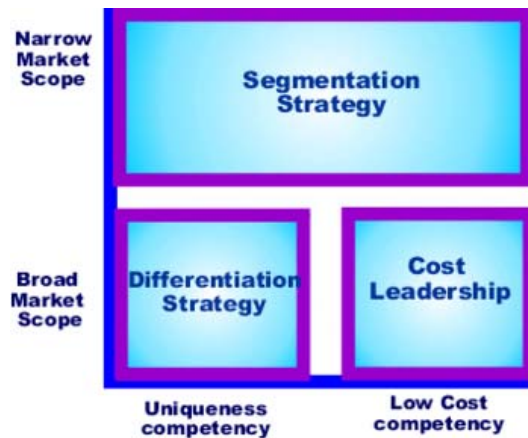


Figure 11: Segmentation Strategy [23]

Differentiation is defined as the delimitation through the increase of the attractiveness to a target market by adding additional value. As a result of the uniqueness of our product (high tech charger and additionally a piece of decoration) a higher price could be charged. There are several companies, which have thought of creating a stylish product to center all devices which need to be charged. However, they only deliver a nice leather or wooden box where a wire could be hidden somehow. Our product will provide a dual advantage in this connection as we not only offer a central and stylish place to locate multiple devices but also provide the charging technology without any ugly wires. [To learn more about the other offers of different companies see: [24], [25], [26]. [27, 28]

Special values our product delivers are style, coolness and convenience. There aren't any products in the market which obtain similar characteristics.

Positioning Strategy

In correlation of a good positioning strategy, it is important that the differences to other products deliver a highly valued benefit to a sufficient number of customers. This will be secured as our product obtains a unique value composition. Our product is convenient, helps to keep tidiness, is easy to use and additionally it is stylish. A classic charger is ugly and annoying, as one always needs to have a power outlet and often the charging device gets lost. Powermat is more than just a charger. No cables are needed and up to three devices could be charged simultaneously. If for some reason, someone wants to use the old method of charging with a cable, which should still work too.

Regarding the costs, Powermat is a premium product and for that reason a higher price could be set.

At the moment no other company which has offered a wireless charging device has entered the market of decoration. Powermat is the only company which offers the combination of a wireless charging station and a piece of decoration. However, it is still necessary to prepare for other companies that may follow. In respect to this, it is important to focus more on researching for further decoration options as well as on improving the efficiency and universal adequacy of more battery driven devices. Moreover, as Powermat is the first company in this market, we will likely be the first brand which comes into people's mind when they think about these products. Apart from that, we plan to cooperate with sales locations and electric manufacturers. However, our main focus in correlation with cooperations are furniture manufacturers, as they will profit the most from such a collaboration. As a consequence of these cooperations, we might be able to exclude others from this market.

With reference to competitors in general, there are some companies which offer a comparable wireless charging station but without any additional values. Regarding the market of decoration in combination with chargers, there are some products which serve as a central stylish place for devices which need to be charged, but no charging solution is included. As there are markets for both of these products, our product will succeed as it is superior in addition.

Branding Strategy

As we are a start up company, our brand is new as well. Our wooden and wireless charger solution is stylish, convenient and cool. Our company's image should reflect the combination of a high-tech product and a wooden stylish piece of nature. In order to do that, we plan to combine wooden and glass in the decoration and construction, so that a modern and premium looking establishment occurs. Moreover, we will set up a separate department for customer service which delivers a premium service for all customer demands. This is aimed at underlining the premium image of our product.

Additionally, we have thought of doing cooperation with the manufacturing companies of the products which could be charged with the Powermat. Those companies are all widespread and well-known. As a consequence, we probably could profit from their brand identity and image. This would be an advantage for us as we could get a positive and trendy image with less effort and in a shorter period of time. However, we will first focus on teaming up with furniture manufactures and those other options are just thoughts for the future.

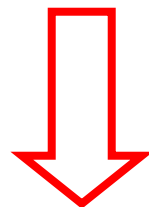
Product plan

Product Life Cycle

As discussed above, there are other competitors with respect to the wireless charging technology. However, there are no competitors who have targeted the decoration market. Due to our differentiation in this connection we will obtain a unique market position. As outlined above, we will try hard to defend this position and to exclude others through various strategic arrangements.

Market Life Cycle

Regarding the market life cycle the Powermat is in a very good position. Chargers have been around for years but the attributes "wireless" and "decoration" have never been linked to it. The product has been released some month ago, so it is still in the introduction stage.



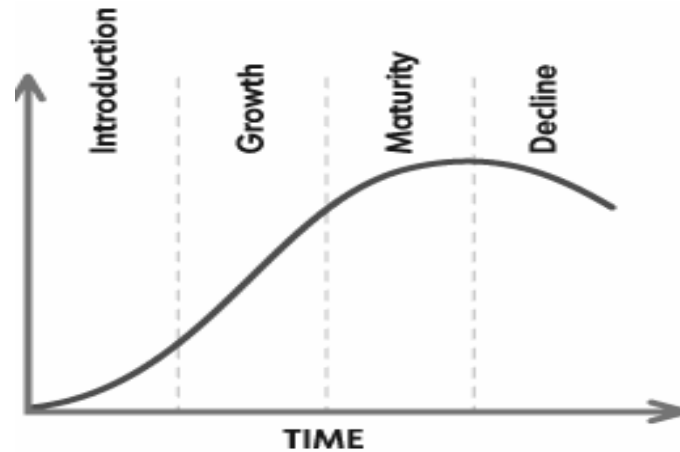


Figure 12: Market life cycle [29]

Technology Lifecycle

With reference to the technology life cycle, the Powermat's current position is the early market. According to a survey which we have conducted a little bit less than 40% know about the Powermat. The traditional charging technology with the help of a cable device is old fashioned and if those cables would not be included many people would not buy them.

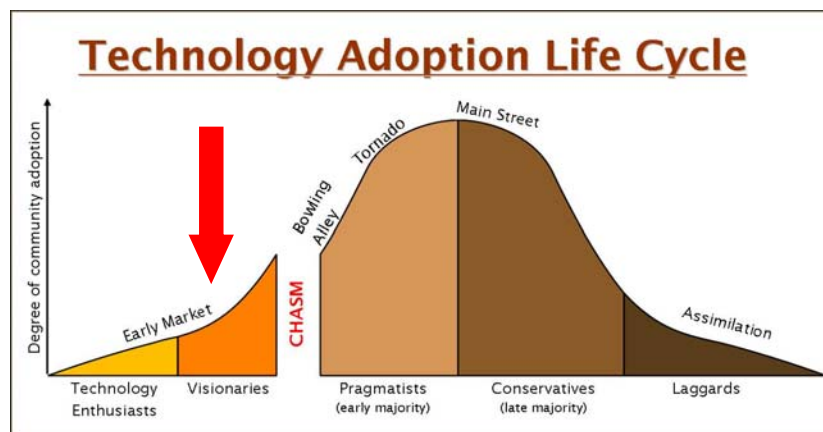


Figure 13: Technology Adoption Life Cycle [30]

Strategy to overcome the chasm

We have focused on the décor variation of the Powermat and thus our strategy to overcome the chasm is based on this assumption. As outlined above, we plan to cooperate with furniture manufacturers to create a high-tech piece of decoration. This will increase our market share as not only high-tech interested people are attracted by this product but also all people who like to decorate their homes with trendy cool things. As we all know the market of decoration is very big and therefore very attractive and helpful for us.

Service and warranty

With respect to the fact that our wooden Powermat is a premium product we plan to provide premium service as well. A separate customer service department will secure that there are enough people to serve the customer's requests. A warranty of two years for the Powermat will be guaranteed.

Packaging strategy

With reference to the adopter which is needed for every device that should be charged by the Powermat, new solutions are explored. As mentioned above, cooperations with phone manufacturers are considered. This includes deliberations of offering the Powermat in a package as well. So the customer will have the choice which charging technology he/she wants to buy. However, our main focus for the next few years is to explore the decoration market and this packaging strategy is only a thought for future possibilities.

Product Strategy

Product Portfolio

As we are a start-up company we do not have a product portfolio. The only product we offer currently is the Powermat.

Product Development

Regarding the fact that the Powermat is still in the early market, it is quite clear that further research and development will be conducted. The focus of this purpose lies in the improvement of the efficiency and applications. In this context our aim is to make the Powermat a universal charging device, so that it is compatible with all kinds of phones. Furthermore, several modifications of the decoration attribute are planned. With reference to all this, R&D costs will increase in the next time. However, this is ordinary for a start up company.

Sales and Distribution Plan

Pricing Strategy

Due to Powermat has many advantages than other products as stated below, we focus on premium market and decide higher price for Powermat than other products (Table D1) [31].

Magnetic Alignment: A magnetic attraction between receiver and each access point on every Mat assures that alignment is precise and the most efficient charging will occur. This is one of the keys to the Powermat system's ability to charge as fast as or faster than original power adaptor.

RFID Handshake: Communication between the Mat and the receiver allows the mat to deliver an exact amount of power for the proper length of time so that the transfer of power is safe and efficient and no energy is ever wasted.

Auto Shut Off: When a device reaches full charge, power is shut off to that device to save energy.

Full Charge Check: Once full power is achieved and the Auto Shut Off has occurred to save energy, the system will monitor the status of the battery in the device. If the battery is used, the system will initiate charging again and return the battery to a full charge.

Industrial Design- Mat: Each Powermat's Mat is stylishly design to flawlessly integrate into its surroundings. The Home & Office Mat is designed to look great in any domestic or work environment while the intelligent, compactable design of the portable Mat looks great while providing simple stowage for travel (Figure 15).

Industrial Design- Receiver: Every Powermat's Receiver seamlessly bonds to the device it will enable to charge wirelessly.

Table D1: Price Comparison

	Powermat	Pure Energy Solutions	Duracell
Pad	\$99.99(+Powercube)	\$49.99	\$49.99
For I-phone	\$39.99	\$34.99, \$79.99(+Pad)	\$34.99, \$79.99(+Pad)
For Blackberry	\$29.99	\$34.99, \$79.99(+Pad)	\$34.99, \$79.99(+Pad)
For other Cellphone		\$39.99, \$79.99(+Pad)	\$39.99, \$79.99(+Pad)
For other device	\$29.99(Powercube) \$29.99(Nitando DS)	\$19.99(PowerDisc) , \$79.99(+Pad)	



Figure 14: The Comparison of Product Design

Partners & Alliances

A variety of parnterships can be formed at all levels of the supply chain (Figure 16) [32]. They include suppliers, complementors, competitors, distribution, and customers. As Powermat is a new product in the market and is at the stage of growth, we need marketing partners while we do not need licensing and R&D ones because Powermat is in-house design and production (Figure 17) [33]. We decide that we will look for three types of partners: furniture manufacturers, distributors, and mobile phone manufacturers.

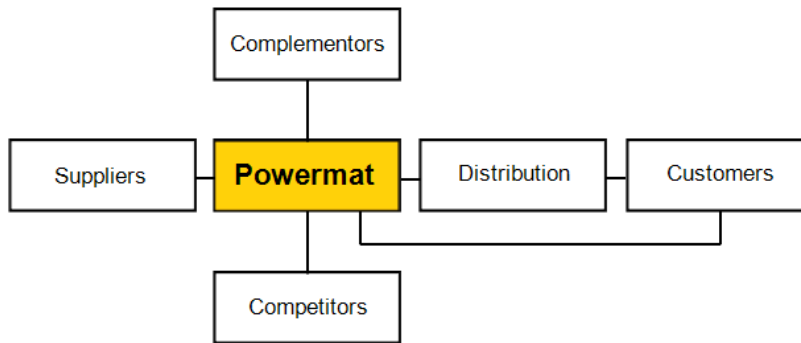


Figure 15: Partnerships along the Supply Chain

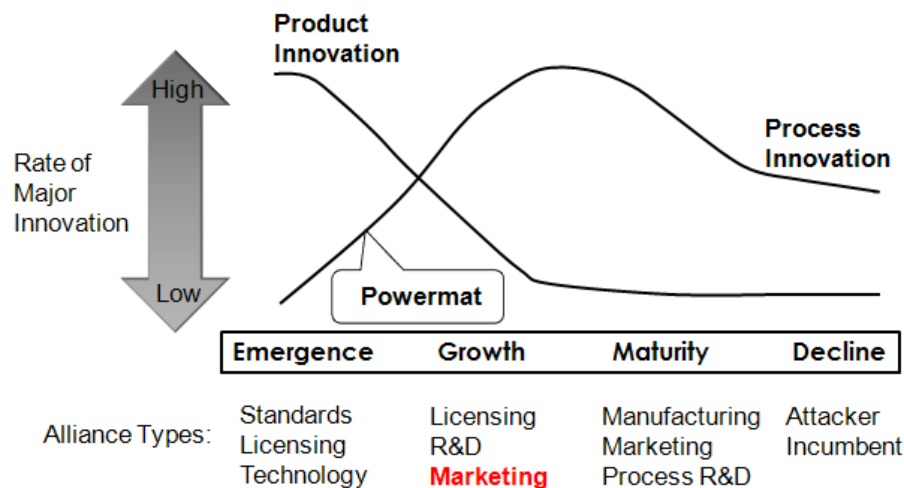


Figure 16: Reasons for Partnering across the Stages of the Product Life Cycle

Furniture Manufactures

The most important partner for Powermat is furniture manufactures. As we stated in branding strategy, we plan to combine wooden and glass in the decoration and construction. We will discuss with high-end furniture manufactures, such as Stanley Furniture, ask them design their furniture with Powermat. As they focus on high quality furniture, it makes us much earlier to access customers who can afford to purchase high price products. The Furniture which includes our product will be cool, fashion, functional, and convenient for consumers. We believe they will accept this cooperation since they have high-tech furniture to advertise and sell.

In the meantime, we will contact with furniture associations and try to propagandize this idea. These associations include American Home Furnishings Alliance (AMFA), American Furniture Manufacturers Association (AFMA), American Society of Furniture Designers (ASFD), Business and Institutional Furniture Manufacturer's Association (BIFMA).

Distributors

Cooperating with distributors has a good opportunity to introduce our Powermat to consumers, which is quite important to such a new product. We will ask distributors- such as shops- BestBuy, Office Depot,

and Sears and online stores- Amazon.com to exhibit Powermat in a conspicuous place and commend to customers (Figure 18).



Figure 17: Powermat display at BestBuy

Mobile Phone Manufacturers

We will seek to cooperate with Apple and Research In Motion (RIM) since Powermat is exactly the product for charging their mobile phones. We can provide lower price to consumers if they purchase our product with mobile phones. Although this will decrease our gross profit margin, we consider it is an excellent marketing idea which is especially for new emerging technology products that people have not understood them very well. When the dominant design is controlled by us- a small firm, we should try to establish a marketing alliance with a large company that has well-developed distribution [34]. The mobile phone manufacturers may accept this cooperation since we will share our profit with them. We will try to negotiate with Apple and RIM because we never limit ourselves before taking an action.

Table D2. Partners & Alliances for Powermat

Partners	Benefits for Partner	Benefit for Powermat
Furniture Manufacturers 	Unique product to sale	Enter our main market
Distributors 	Unique product to advertise/sale	- Free advertisement - Access to plenty of consumers
Mobile Phone Manufactures 	Extra Revenue	Access to plenty of users/customers

Promotion Strategy

The promotion strategy for the Powermat will include conventional medium- television and radio, Internet/web- an official website, consumer electronics websites, and social network sites, and trade shows (Figure 19) [35].

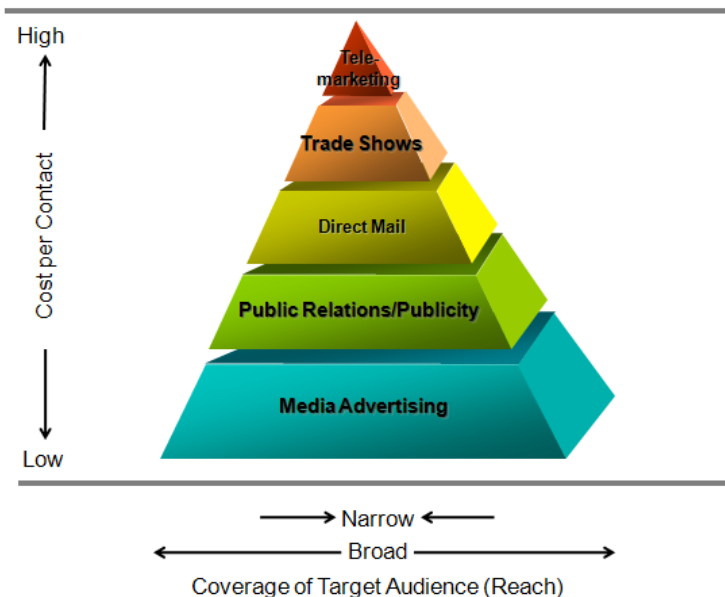


Figure 18: The Advertising and Promotion Pyramid

Conventional Medium

Our advertisements will be shown on TV and radio to let audiences know Powermat charges iPhones, Blackberries and some other portable devices without cords (Figure 20). We will emphasize its cordless technology, convenience, and cool-looking. Besides, portable Mat can be folded up to the size of a wallet; this will be an advantage for travelers. It is very convenient because people do not have to travel with three different chargers for the phones, iPods and laptops.



Figure 19: Powermat TV Commercial

Internet/Web

An Official Website

First of all, an official website is needed to promote Powermat since people do not understand this technology/product and would like to know more about it (Figure 21). In this website, we have to include elements, such as context, connection, content, community, communication, and commerce. We will introduce Powermat (what is it), the innovation (cordless/industrial design), product guided tour (how it works), and buzz from other professional websites to convince people its advantages.



Figure 20: Powermat Official Website

Consumer Electronics Websites

Professional websites that introduce new electronic products, such as Cnet, ZDNet, and Engadget, are techy people like to surf. In addition, most people who often browse them trust articles in these websites. Hence, we will cooperate with those editors to introduce Powermat and promote it on their websites.

Social Networks

As the internet is more and more important and becomes a part of our life, we also have to focus on “Web 2.0 Technologies [36].” People like to publish/share information on social network sites, such as Facebook, Myspace, Twitter, and Youtube. Therefore, we will set up personalized websites on each popular social network (Figure 22). The more people join personalized websites, the more consumers will know and buy our product.



Figure 21: Powermat on Popular Social Networks

Trade shows

International professional tradeshow are important opportunities to display our product. We will focus on consumer technology tradeshow, which include CES, CeBit, Computex, and IFA and furniture tradeshow, such as International Contemporary Furniture Fair (ICFF) and Paris Furniture Show (Figure 23).



Figure 22: Important Tradeshow for Powermat

Financial Analysis

Potential Market

The current number of total households in the United State is 115 million people. Of this approximately 78 million are designated as family households.ⁱⁱ Our survey results indicated approximately 50% of users had multiple electronics. Using this base number of available households as the starting point the number of contacts made through various advertising techniques is estimated.

	Number (Millions)
Total Households	115
Family Households	78
W/ Multiple Electronics	39

Table D3: Total Number of Households

Marcom Breakdown

Our advertising is broken predominately into two main groups. The first is referred to as conventional. This group consists of traditional print, radio, and television advertising. Of these print is used most exclusively via magazine and newspaper sales advertisements. Powermat assumed a 1% success rate for getting the target audience's attention. A 10% closure rate was use to generate sales data based on the \$100 price tag. With internet advertising the anticipated hit rate was only 0.5%, but the total cost for internet advertising was substantially lower resulting in a better return on investment dollars from internet advertising.

	2010	2011	2012
Print	\$1,000,000	\$1,100,000	\$1,210,000
Magazines	\$600,000	\$660,000	\$726,000
Newspapers	\$400,000	\$440,000	\$484,000
Internet	\$350,000	\$385,000	\$423,500
Click Advertising	\$175,000	\$192,500	\$211,750
Banner Advertising	\$175,000	\$192,500	\$211,750
Total	\$1,350,000	\$1,485,000	\$1,633,500

Table D4: Marcom budget

What is the The Bass Model

Presented by Frank Bass in 1969, the Bass Model is “the only method that addresses the diffusion of an innovation in terms of how information about the product is shared among the pool of potential adopters” [8]. It provides useful information for estimating the first sale and penetration rates of the product. Gary [37] selected the use of the Bass Model for forecasting the long-term infiltration of new technologies and products into the market. Dodds [38] also preferred the use of the Bass Model over other forecasting methodologies because it is the only model that allows a forecast of turndown in sales when sales seem to be growing.

This methodology was the model of choice in many other industries as well; retails service [39], software piracy [40], business telephones [41], recorded music [42], digital imaging in the banking and insurance industries [43], fluid package types [44], vehicles and traffic [45]. Research shows that the Bass model is accurate and it is capable of providing a close forecast when its assumptions are used carefully.

The analytical framework leverages on the knowledge of previously launched products to understand potential markets for new products. It is based on the notion that new products get adopted because of social interactions among users. In fact, the parameter p predicts the likelihood of somebody who has not use the product will use it because of media promotion or from other external factors and q focuses on people who are not using the product but will likely use it because of “word-of- mouth” from those that are already using it or other internal influence [46].

For the purposes of the project, the Bass Model fit very well. Not only did it determine the rate of product diffusion, but also provided key data on consumer behavior that we were looking for in the United States and Korea. Furthermore, the model allows us to be flexible in selecting analogous products that, just like WiMAX, are facing strong technology competition.

Financial Breakdown by Marcom Breakdown

Selling the Powermat for \$100 and assuming a sales growth rate of 10% per year the company is on track to generate \$1.2 million by 2012. These estimates include a COG of 30% of sales, operating expenses of about 5% of sales, R&D held at 15% of sales, SG&A at 20% of sales, and a Marcom budget that is growing at a rate of 10% per year. This translates to a healthy profit margin of 7%

In \$1000	2010	2011	2012
Gross Sales	\$5,850	\$6,435	\$7,079
COGS	\$1,755	\$1,930	\$2124
Gross Income	\$4,095	\$4505	\$4955
Operating Expenses	\$293	\$322	\$354
R&D	\$878	\$965	\$1,062
SG&A	\$1,170	\$1,287	\$1,415
Marketing Expenses	\$1,350	\$1,485	\$1,634
Net Income	\$405	\$445	\$490

Table D5: Financial Breakdown by **Marcom Breakdown**

Financial Breakdown by bass mode

Selling the Powermat for \$100 and assuming sales by bass modeling($p=0.04, q=0.39, m=115$)(see appendix), These estimates include a COG of 30% of sales, operating expenses of about 5% of sales, R&D held at 15% of sales, SG&A at 20% of sales, and a Marcom budget that is growing at a rate of 10% per year. Their profit margin will be increasing from 2% to 14% during next 5year

In \$1000	2010	2011	2012	2013	2014
Gross Sales	\$4,812	\$6,424	\$8,331	\$10,382	\$12,273
COGS	\$1,444	\$1,927	\$2,499	\$3,115	\$3,682
Gross Income	\$3,368	\$4,497	\$5,832	\$7,267	\$8,591
Operating Expenses	\$241	\$321	\$417	\$519	\$614
R&D	\$722	\$964	\$1,250	\$1,557	\$1,841
SG&A	\$962	\$1,285	\$1,666	\$2,076	\$2,455
Marketing Expenses	\$1,350	\$1,465	\$1,634	\$1,797	\$1,977
Net Income	\$94	\$462	\$865	\$1,318	\$1,705
profit margin	2%	7%	10%	13%	14%

Table D6: Financial Breakdown by bass model

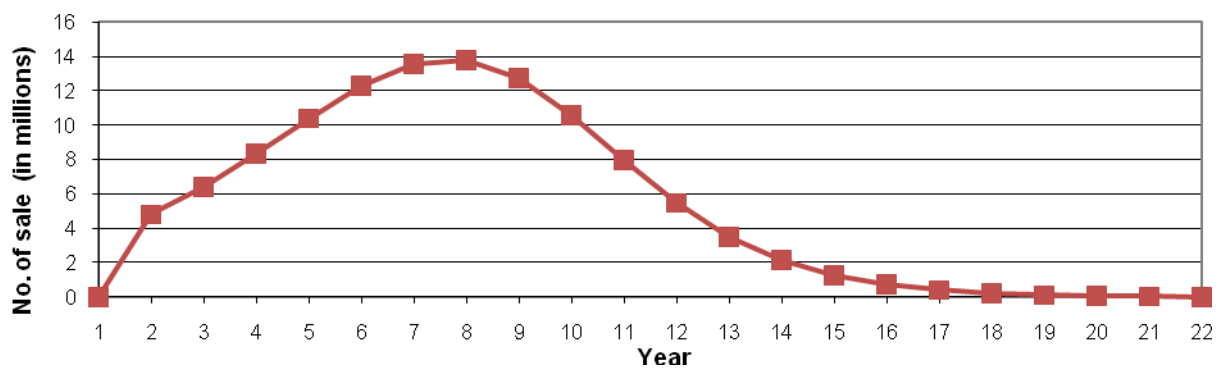
APPENDIX

USA Coefficients of Comparable Products							
Technology Innovation Need for renewal			Estimated Scores				Weighted Score
			Market Structure	Observability of Benefits	Relative Technology Advantage		
Product (Period of Analysis)	p [²]	q [²]	w ₁ = 0.25	w ₂ = 0.40	w ₃ = 0.35		
Mainframe Computers (1955-1978)	0.021	0.234	9	9	9	13.5 9	0.46
Electric toothbrush (1991-1996)	0.110	0.548	9	6	6	7.29	0.25
Wireless Telephone (1984-2002)	0.001	1.232	6	7	7	8.36	0.29
Weighted Average	0.038	0.598					1

Calculate q and p from Comparable Products

t(years)	N(t)	S(t)	N(t)/m	S(t)/m	innovators	imitators	Total
0	0	0	0	0	0	0	0
1	4.81	4.81	4.18%	4.18%	4.8123	0	4.8123
2	11.24	6.42	9.77%	5.59%	4.610924	1.814036733	6.424961
3	19.57	8.33	17.02%	7.24%	4.342065	3.988982671	8.331047
4	29.95	10.38	26.04%	9.03%	3.993443	6.388606777	10.38205
5	42.22	12.27	36.72%	10.67%	3.558995	8.714345184	12.27334
6	55.78	13.56	48.51%	11.79%	3.045404	10.51251187	13.55792
7	69.56	13.78	60.49%	11.98%	2.478058	11.30076617	13.77882
8	82.28	12.71	71.54%	11.06%	1.901468	10.81326112	12.71473
p=0.042 q= 0.393 m=115							

Result of bass model: per year



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