

Exploration Into The Early Success Of I-Mode Product Launch

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ABSTRACT

In Japan, i-mode was launched in February 1999 and becomes the world's first mobile Internet access service. Since the launch, the product has rapidly achieved early success and continues to be the dominant force in the market, in spite of escalating challenges by late competitor-comers. What are the key success factors of i-mode? This study examines which factors might be more important than the others in accounting for i-mode success. The study also probes into the trait of early diffusion and the perceived associative image of the product. In order to address the research issues noted above, this study adopts a mixed-method approach. First, an interview is conducted with a company representative of i-mode in order to explore conditions leading to the success of the product. Then, a questionnaire addressing these and other possibly key conditions is administered to a sample of i-mode subscribers as respondents in Japan. Results demonstrate that the effective manipulation of marketing strategies, particularly the product and promotion strategies, plays a pivotal role throughout the six-year period from product launch to the currently leading position of i-mode in Japan's mobile communication market.

INTRODUCTION

Most new products fail before achieving a reasonable return for their launch to the market. Only one out of four new products succeeds commercially and one-third of all product launches fail¹ (Cooper 2001). The failure rate is particularly high for consumer products (Doyle 1998). It is difficult to develop and deliver a successful product that can satisfy customers at large and survives in the market for a long period. Against this, it is very uncommon for i-mode to have succeeded in winning customer loyalty and bringing in handsome profit.

i-mode, the world's first mobile Internet access service introduced in February 1999, is the new value added service of mobile communication provided by NTT DoCoMo² in Japan. The service offers a connection to the Web without the hassle of requiring to be connected to a computer and phone line. While an ordinary mobile voice system is 'circuit-switched', i-mode is 'packet-switched' which renders it 'always on' in principle within any area where the i-mode signal can be transmitted. Launched in February 1999, i-mode has rapidly achieved a remarkable level of acceptance. Six years after its launch, i-mode continues to grow in popularity. Today, this convenient form of mobile service has attracted over 40 million Japanese subscribers (Eurotechnology 2005a; NTT DoCoMo 2005).

Table 1 - Growth Of i-mode Subscribers In Japan

Month/year	Number of subscribers
Early 1999	0
March 2000	5,603,000
March 2001	21,695,000
March 2002	32,156,000
March 2003	36,931,000
March 2004	40,607,000
March 2005	44,000,000

Source: Eurotechnology (2005a); NTT DoCoMo (2005)

Soon after the launch of i-mode, emulators such as J-sky and Ezweb have come onto the market with arguably more advanced technology and more attractive price package than i-mode. However, i-mode still maintains a majority market share of more than 60%. This translates into a remarkable financial success for its owner company NTT DoCoMo, whose pre-tax profit has leaped forward from less than 400 billion in March 1999 to more than 1,000 billion Japanese Yen in 2005. It would not be an exaggeration to suggest that NTT DoCoMo's i-mode has become Japan's greatest consumer product success since Sony Walkman in the early 1980s (Rohwer, et al. 2000).

Sanda (2000) has commended that Japanese consumers are very susceptible and gadget-oriented, and that i-mode, apparently successful after its first year of market launch, is merely a fad similar to many other gadgets in Japan. The persistent success of i-mode for a prolonged period of six years since its launch has nullified this comment. This exploratory study aims at identifying possible marketing reasons contributing to i-mode market success. Circumstances leading to the setting up of this research aim are elaborated in the next section.

RATIONALES OF RESEARCH AIM

Numerous studies have been carried out regarding the conditions conducive to the success of a new product. For example, Davidson (1976) presents three basic rules for a new product success: significant price or performance advantage, significant difference from existing brands of the same product category, and better value offered to customers. Cooper (1994) also identified the following key factors of a new product success: superiority of the new product, quality of marketing actions from idea to launch, study undertaken prior to the new product development and launch project, selection of attractive market segments, accurate definition of the new product, and correct approach to organisational design. In addition, Karakaya and Kobu (1994) found that customer switching costs, access to distribution channels, product performance, product obsolescence, and marketing, are important influences on new product success, especially for high technology firms.

According to Doyle (1998), more stress should be placed on the product's advantages, especially its innovativeness, than on price advantage for the success of a new product. He states that top companies beat their competitors not by price, but by making competitors' offers obsolete, by providing customers with new products of superior value – in other words, innovation. In his view, consumers do not want new products or services as such, but they want solutions to the deficiencies of existing products and which offer new and superior benefits. In order to acquire these product advantages, Kojima (2001) comprehensively suggested ten essential conditions for the market success of a new product: (1) meeting consumer needs, (2) meeting current market trends, (3) proper marketing, (4) support by high technology, (5) good product design, (6) suitable product name, (7) high usability, (8) affordable price, (9) strong promotion, (10) favourable reputation of the company.

A more detailed look at all the above conditions suggested by different academicians indicates that most of these conditions are marketing reasons. It is therefore deemed logical to subsume that a correct combination of different marketing mix variables is instrumental to the success of any new product in today's market. Eurotechnology (2005b) also suggests that marketing is a major possible reason for i-mode success, although this suggestion has not been empirically validated. Then what are the manifestations of these marketing mix variables that could contribute to the success of i-mode?

In order to further justify the focus on marketing reasons through which to explain i-mode market success, this study has conducted a depth interview with i-mode Business Department of NTT DoCoMo. Results indicate that marketing is perceived, albeit unproven, as crucial for the success of i-mode product launch. Details of the depth interview and its concomitant results are elaborated in the next section.

RESEARCH DESIGN

To accomplish the research aim established as above, this study has proceeded along two research stages. During the first research stage, a depth interview and a pilot study would be conducted. In so doing, the rationale of the focus on marketing reasons in this study would be ascertained, specific marketing mix variables would be elicited,

and the draft questionnaire would be fine tuned and finalised. During the second research stage, a questionnaire survey would be conducted.

First Research Stage

Depth interview

A depth interview was conducted with a representative of i-mode Business Department, NTT DoCoMo on 14 June 2003 at the company's Tokyo headquarter. In advance of the interview, a sheet of questions to be discussed were sent via e-mail to the representative. The interview subsequently lasted for approximately one and a half hour. By the end of the interview, a variety of marketing reasons of i-mode market success have been put forward. These marketing reasons would be incorporated in the final questionnaire. Some key marketing reasons and corresponding original quotes from the representative are listed below:

Product

High-value brand image - *'Many people point out that i-mode service fees are not cheap compared to other carriers. ... however, is to give a high-grade image to the brand. ... We are not competing through lower prices but a higher quality of service. ... if a company competes through a low price, it may have to keep lowering the price since customers won't mind changing carriers to a cheaper one ... damages the brand image as well.'*

Wide service area - *'A wider service area is another superior point ... DoCoMo can win the overwhelming area advantage against competitors by exploiting NTT's (the former governmental telecom company) national network. ... Recently, building additional radio towers has become controversial because of the health issue of electromagnetic waves and the environmental point of view, so it is a strong advantage to be able to utilize the existing wire network.'*

Variety of contents - *'We created a revenue share model to attract providers and adopted iHTML to let providers participate in the business of i-mode content easily. Thanks to this close collaboration with content providers, an enormous number of i-mode sites (over 3,000 official and 53,000 unofficial) are available.'*

Promotion

Effective marketing communication of product concept - *'The product concept and how it is communicated to consumers is successful. ... Probably many of the i-mode users do not think they are connecting to the Internet when they use it because it is so simple and easy. ... The point is how to communicate the benefits of the new product or service and its use as clearly as possible to as many potential users (who are not of course IT specialists) as possible ... We seldom use technical words, even 'the Internet', in its promotion because they might confuse people. We, for instance, produced an advertisement showing a girl who has no problem with her mobile banking via i-mode. Here, she does not use any technical word but shows what i-mode can do and what benefits i-mode can bring. Although i-mode uses a number of new technologies such as packet-switched network, we try to divert people's attention away from these technologies to the benefits arising from them.'*

Word-of-mouth effect - *'At the very early beginning of the launch, we offered free i-mode phones to high school girls, who are thought to be typical trend-setters in Japan, and asked them to recommend it to their friends if they liked it.'*

Place (distribution)

Extensive distribution - *'i-mode is basically a value-added service on the mobile phone. We have used our existing extensive distribution channel.'*

Pilot survey

Six i-mode users living in Tokyo and aged at twenties were identified as respondents for the pilot survey. The geographical and age backgrounds of these respondents match those of the respondents in the final questionnaire survey. Reasons for the choice of respondents with these backgrounds are elaborated in the next sub-section.

Each of the six i-mode users was presented with the following general question either over the phone or by e-mail:

Why did you choose i-mode even though there have already been similar products charging lower fee and/or providing more technologically advanced features?

Second Research Stage

Taking into account the feedbacks from the depth interview and the pilot survey, a questionnaire was finalised and administered to respondents during the researchers' two-week stay in Japan. In view of the exploratory nature of this study, a target sample size of 200 has been established. Each respondent in the sample has to meet all the three conditions: (1) being a subscriber to i-mode service, (2) living in Tokyo, and (3) aged at twenties.

The first condition has to be met because i-mode users are generally more knowledgeable about issues related to i-mode. The second condition has been set up as Tokyo is often the main target of new product launch in Japan. The third condition has been prescribed because the twenty-something age group was the principal target group when i-mode was launched into the market (Frengle 2002).

There are solid reasons for NTT DoCoMo to target at the twenty-something age group for launching i-mode into the market. Young consumers represent one of the largest and most powerful consumer groups in Japan (Harney 1999). A survey by Hill (2000) labelled a high proportion of these young consumers as 'mobile phone mailers', who, albeit making less than full use of IT equipment, use mobile phones extensively in both voice communication and e-mail. These young consumers treat each purchase of a new product as part of their continuous self image creation (Martinez and Polo 1996). Although individually they do not possess much money, they like to spend what they have on new products.

Another interesting phenomenon among young Japanese consumers is their passion for socialisation (Hill 1998). They might feel uneasy unless they can be accessible to their friends at all times. However, the level of socialisation they are pursuing is shallow as they do not fancy fabricating deep relationships with each other. It is therefore no wonder that they are so extensively making use of text messaging and e-mailing on their mobiles as an ideal means of keeping constant contact with their friends, carrying on idle conversations often without a specific purpose. i-mode, especially its communication function, is considered as an ideal fit for the lifestyle of these young consumers.

RESULTS

Early Success Of The Launch

Table 2 shows that 13.9% of the sample purchased their first i-mode within six months of its launch, while another 16.8% did so within the next six-month period. Moore (2002) suggested that innovators occupy only 1%, while early adopters take approximately 13.5% of the total population. Strictly speaking, the two cannot be compared because the survey in this study was conducted when i-mode has not run through the whole of its product diffusion process, while Moore's (2002) data take account of all the five categories of users along the process, i.e. innovators, early adopters, early majority, late majority, and laggards.

However, the rate of i-mode subscriber growth has been much less drastic and become steadier since 2002 (Table 1 above). In addition, the number of i-mode subscribers at the time of this survey has been over 30 million,

and is moving toward the upper limit constrained by the mobile phone population in Japan and the existence of competition. It is therefore logical to suggest that i-mode is now in or near the maturity phase and any new buyer from now on should be classified as early or late majority.

The percentages of the five types of users along the product diffusion process, as noted by Moore (2002), are not accompanied by a corresponding time frame. However, it should not be unreasonable to suggest that a person can be classified as an innovator of a consumer electronic product only if he/she tries the product within a year of its launch. With this in mind, i-mode looks to have surpassed many other new products in enticing a large number of potential consumers to become innovators within a short time frame.

So what causes such a remarkable early success of i-mode? The sample respondents of this study are all young people aged in their twenties, who were identified as the main target during the market launch of i-mode. This targeting strategy became fruitful as an unusually high percentage of these young people were attracted and became the first group of i-mode customers. Not only did this targeting strategy bring in an early stream of customers and revenue to NTT DoCoMo, but this also helped to set up an unstoppable momentum to make i-mode an industry standard that other competitors find it very hard to break into.

However, to achieve both early and longer term success, a new product has to be not only rightly promoted to appropriate audience, but it should also be of good value for money. One essential source of the value for money of a new product is the benefits it can bring to customers (Crawford 2003). Young Japanese consumers are potentially keen to adopt new products, including i-mode, if these new products can provide benefits by matching their needs. As will be discussed later, i-mode looks to meet both practical and psychological needs of these young consumers.

Table 2 – Time period of i-mode adoption

Time period	Percentage of sample respondents
February 1999 – July 1999	13.9
August 1999 – January 2000	16.8
February 2000 – July 2000	24.8
August 2000 – January 2001	19.8
February 2001 – July 2001	14.9
August 2001 – July 2003	9.9
Total	100.0

Customer-Oriented Reasons Of Success

This section probes into the reasons of i-mode adoption as noted by respondents who are all customers of the product. These adoption reasons are used as proxies of some of the reasons of success of the product. Surely whether a product launch is successful depends not only on feedback information provided by customers. These reasons take note of only the horizon of what customers know after the product has been launched. Customers do not know what has been achieved by the company involved prior to the product launch, such as close coordination between marketing and technical departments of the company. However, as the pilot study has revealed, the effectiveness of the marketing campaign is apparently instrumental to i-mode market success. This marketing campaign is targeted at potential customers, who therefore should be in an appropriate position to judge whether the different aspects of the marketing campaign play a part in inducing them to use the product.

'Popularity' tops the list of the most important reasons for the adoption of i-mode among sample respondents. This is followed by i-mode being 'the latest, most advanced mobile' (ranked 2nd), 'NTT DoCoMo reputation' (3rd), 'good handset design' (4th), 'wide service area' (5th), 'ability to access the Internet' (6th), 'recommendation' (7th), 'influence of promotion' (8th), 'variety of content' (9th), and 'reliability' (10th).

Table 3 – Most important reasons of i-mode adoption

Rank	Most important reason	Percentage of sample respondents
1	Popularity	15.0
2	The latest, most advanced mobile	13.2
3	NTT DoCoMo reputation	11.1
4	Good handset design	11.1
5	Wide service area	10.7
6	Ability to access the Internet	9.0
7	Recommendation	6.8
8	Influence of promotion	5.6
9	Variety of contents	4.3
10	Reliability	3.0
11	Reasonable fee scheme	1.7
12	Better service than other carriers	1.3
13	Good customer service	0.4
14	Other reasons not listed above	6.8

Product

The depth interview has suggested high-value brand image, wide service area and variety of contents as three suggested 'product' reasons of the early market success of i-mode. These have been suggested again by the sample respondents. More than a quarter of the sample respondents consider 'popularity' or 'NTT DoCoMo reputation', both of which enhance or are enhanced by the perceived value of brand image, as the most important reason of their adoption of i-mode.

The importance of 'popularity' is further elevated after a closer scrutiny of the descriptive contents of 'other reasons not listed above'. Half of the respondents who took this option elaborated it as something similar to the following:

'It is just because friends are using it.' or *'It is convenient because most of my friends use it.'*

This demonstrates that the popularity of i-mode during its early market growth is a manifestation of network externalities. The higher the number of subscribers, the greater the value of the product becomes, which takes i-mode into further market success (Gowrisankaran and Stavins 2004).

The contribution of 'NTT DoCoMo reputation' to i-mode marketing can be further understood through Table 4, where the owner company has been highlighted as the most frequently associated description of the i-mode brand. A well-established and reputable company would be better positioned to launch a new product successfully than otherwise (de Chernatony and McDonald 2003).

Table 4 – Associated description of i-mode brand

Association	Percentage of sample respondents
NTT DoCoMo	36.6
Expensive	13.9
Market leader	12.9
E-mail	12.9
Advertising/TVCM	12.9
Internet	10.9

Wide service area is also highly regarded by the sample respondents as one of the most important reasons of their i-mode adoption. Understandably the value of a telecommunication product would be enhanced by its ability to service a larger geographical area.

Variety of contents, as suggested as an important factor of i-mode market success during the company depth interview phase, is also chosen by the sample respondents as one of the top ten most important reasons of i-mode adoption. However, such an importance has been shadowed by a significantly lower ninth ranking (Table 3).

This demonstrates that between the two factors of i-mode success suggested in the company depth interview, high-value brand image is significantly more important than variety of contents. Indeed, psychological product benefits such as 'popularity' and 'NTT DoCoMo reputation' seem to exert greater persuasive power than many functional product benefits (e.g. variety of contents, ability to access the Internet, reliability, and to a less extent wide service area) in consumers' i-mode adoption process.

Promotion

Although promotion is comparatively less influential than product in consumer adoption of i-mode (Table 3), it is still an important marketing tool contributing to the early market success of the product. About one-eighth (12.4%) of the sample respondents regard promotion, including company promotion campaign ('influence of promotion' in Table 3) and word-of-mouth effect ('recommendation' in Table 3), as the most important reason of their i-mode adoption.

A key characteristic of i-mode promotion is NTT DoCoMo's insistence on the use of simple promotional message. i-mode is supported by a new technology, which helps to keep the product ready to go online without the need to dial up each time. Although the technology itself can be complicated to the ordinary public, the use of simple promotional message makes the product easy to understand by potential customers, which facilitates the ease of usage. Technical words, even the Internet, are seldom used in marketing communication. Instead the product benefits are stressed throughout the promotion campaign. This easy-to-understand promotional approach helps to lower the barrier to understanding and using i-mode and its built-in technology, resulting in the wide acceptance among the consumer public. In contrast, cdma-one, once an apparently strong competitor of i-mode, failed in spite of its featuring high quality sound and high transmission speed. This may be because cdma-one stressed its advanced technology in promotion rather than what this advanced technology could provide for its consumers, resulting in the consumer public not quite understanding the product. Frengle (2002) also noted that 'Looking at NTT DoCoMo's implementations, you will see that very close attention has been paid to customers' wants and needs'. By comparison, most failed WAP implementations show a lack of concern for customers.

Table 3 shows that 'the latest, most advanced mobile' is the second most important reason of consumer adoption. Whether i-mode is the latest, most advanced mobile is debatable – cdma-one was apparently not inferior to i-mode in terms of its built-in technology. However, i-mode's stress on the front-end product benefits rather than the back-stage product technology has contributed to the maximisation of the value of the product as perceived by its customers, to the extent that they regard the product as the latest and the most advanced version of its kind. More than 70% of the respondents regarded i-mode as the industry standard of the mobile Internet service in Japan. This positive perception helps to drive up sales. It is no longer very important to assess whether this perception is real or otherwise.

The market growth of i-mode is fuelled not only by the company promotion campaign, but also by the word-of-mouth effect. Table 5 below indicates that more than three-quarters of the sample respondents have recommended i-mode to someone, or been recommended by someone. This massive word-of-mouth chain has created a momentum for the rapid market success of i-mode, by not only leading directly to i-mode purchase but also enlarging the pool of potential buyers who might not otherwise notice the benefits brought by the product and who could subsequently join the word-of-mouth chain.

The importance of the word-of-mouth effect, and its comparison to the company promotion campaign, have been nicely depicted by Henning-Thauru, Walsh and Wruck (2001). The authors categorised two forces affecting new product adoption. The external force consists of marketing efforts such as advertising and sales promotion, while the internal force comprises of interactions among consumers particularly the word-of-mouth effect. They argue that the external force is crucial for a successful launch and takeoff. Yet beyond that stage, the effectiveness of the external force is reduced, as internal dynamics become the main force propelling growth. When a product idea is perceived as

new, consumers will seek information from the people they know to evaluate its expected utility and consequences. At the other end, some people who have tried and are satisfied by a new product have a desire to influence the purchase behaviour of others. Compared to the company promotion campaign, the word-of-mouth effect is sometimes perceived as a more credible source of information, exerting a greater impact on a prospective customer's willing to adopt.

A cross-tabulation analysis of this study shows that the momentum looks to become very big at some point of the product life cycle, possibly in the early stage of the high growth. Specifically, one-and-a-half year after the launch of i-mode (August 2002 onwards), as high as 90% of the sample respondents who purchased i-mode had been recommended by other people³.

Table 5 – i-mode word-of-mouth chain

Role in i-mode word-of-mouth chain	Percentage of sample respondents
Ever recommended to someone	45.5
Ever recommended by someone	64.4
Ever recommended to/by someone	76.0

This approach bears fruit, as the two pillars of the simple promotional message – mobile communication and easy access to the Internet, are embedded in the minds of i-mode customers, and identified as the two most satisfied attributes. This successful transmission of the core product benefits to the consumer public contributes to fuller understanding of the product, so that customers would feel easier to use, which becomes the third most satisfied attribute of i-mode (Table 6).

Table 6 - The five most satisfied attributes of i-mode

Most satisfied	Percentage of sample respondents
Mobile communication	77.4
Easy access to the Internet	32.6
Simple usage	22.8
Wide service area	20.9
Variety of contents	19.9

Pricing

The fees structure of i-mode is such that charges are based on the volume transmitted rather than on the amount of time connected. This has been conjectured as a possible contributory factor of its market success (Eurotechnology 2005b). Yet results of this study disconfirm this. As can be seen from Table 3 in a previous section, 'reasonable fee scheme' is located near the bottom of the list of i-mode adoption reasons, while Table 4 shows that 'expensive' is the second most frequently associated description of the i-mode brand.

This notion of expensiveness can be further diagnosed from Table 7, where a high proportion of the sample respondents noted that the price and fees, including handset price, basic service fee and usage fee, are all expensive. The result is understandable as these young sample respondents usually do not have a large amount of money to spend on. Against such a perceived high fees structure, approximately 80% of the sample respondents have been successful in keeping their total monthly payment within 10,000 yens (approximately £50), which should be affordable among young Japanese consumers. As i-mode users are not deterred in spite of their passive complaint of the high fees structure, one can deduce that i-mode has been successful in offering non-price benefits such as what were noted above that outweigh the high fees disadvantage.

Table 7 – Fees structure of i-mode

	Handset price	Basic service fee	Usage fee
Very reasonable	1.0	1.0	3.0
Reasonable	4.0	4.0	3.0
Neutral	14.9	26.7	21.8
Expensive	28.7	35.6	39.6
Very expensive	51.5	32.7	32.7

Each figure in the Table is the relevant percentage of sample respondents

Place (distribution)

‘Extensive distribution’ has been suggested as a major distribution reason of i-mode early market success. NTT DoCoMo is a well-known telecommunication enterprise in Japan with an established network of distribution outlets, and therefore can capitalise on this distribution strength to sell its i-mode product. In general, respondents are satisfied with the number and location of i-mode service shops. This distribution strength can contribute to ‘better service than other carriers’ and ‘good customer service’ as two contributory reasons of consumers’ i-mode adoption (Table 3).

CONCLUSIONS AND FUTURE RESEARCH DIRECTIONS

As can be witnessed from the preceding section, the effective manipulation of marketing strategies plays a pivotal role throughout the six-year period from product launch to the currently leading position of i-mode in Japan’s mobile communication market.

At the start of i-mode product launch, NTT DoCoMo had nicely targeted at the appropriate audience (Martinez and Polo 1998), i.e. young consumers. This helped to create a larger than expected very-early-user base, occupying 30.7% of the total number of sample respondents. Many of these very early users, after trying the product, recommended to other people who became potential adopters of the product.

When promoting the product, NTT DoCoMo has used simple, non-technical, benefit-oriented messages to get across to the consumers. This helps customers to easily understand and fully exploit the core product concept of i-mode, which is essentially an integration of mobile communication and the Internet affixed to the mobile phone in an easy-to-use fashion. With the successful marketing communication of the core product concept to the consumers, it is no wonder that mobile communication, easy Internet access and simple usage have been tipped off as the top three most satisfied attributes of i-mode.

The nicely conceived targeting and promotion strategies noted above have made possible the realisation of the word-of-mouth effect in a more widespread fashion and at an earlier stage. As many as 70% of the total number of sample respondents have been involved in the chain of recommendation of i-mode. This word-of-mouth effect in turn contributes to the snowballing of the popularity of i-mode, which becomes the prominent driving force of i-mode purchase. The more popular i-mode is perceived, the more difficult i-mode purchase is resisted.

After popularity, the next prominent driving force of i-mode purchase is the perceived high-value image of i-mode brand which NTT DoCoMo has been successfully cultivating. Consumers as a whole are naturally gravitated to products with a strong brand reputation (Chaudhuri 2002). This importance of brand reputation can be even greater for the purchase of hi-tech products, which is perceived as risky by consumers because this kind of products exhibits pervasive technological and market uncertainties (Davidow 1986), and are more rapidly obsolete and depreciated (Dhebar 1996). With a stronger brand reputation, consumers have something to rely on to assist in their purchase decision making, and their perceived risk associated with this hi-tech product purchase will be lower than otherwise (Sarin, Sego and Chanvarasuth 2003). As a result, some other competing products of i-mode, such as EZ-Web and J-Sky Web, provided technologically advanced features at a lower price, and were supposed to have the capability to grab some of the market share and popularity from i-mode. This has not happened considerably due to the perceived high-value image of i-mode brand and its lower perceived risk among the consumer public. Consumers choose a

favourite brand not only for its tangible benefits such as technologically advanced features at a lower price, but also at many times more importantly for its intangible perceived high-value image (deChernatony and McDonald 2003). As half of the sample respondents in this study look upon i-mode as dovetailing into the ongoing fashion, it is deemed logical to conjecture that a sizable proportion of i-mode adopters see its brand as a non-verbal clue in communicating with their peer groups, so as to maintain or even to enhance their self-image (deChernatony and McDonald 2003). The perceived high-value image of a brand can be further enhanced by its linkage to a well-established corporate name (deChernatony and McDonald 2003). The owner company of i-mode, NTT DoCoMo, is the most associated description of i-mode according to the survey of this study. NTT DoCoMo is well-established as the leading mobile carrier in Japan. Any product related to its core business area would be respected in the same positive manner by the consumer public.

The strong image of the brand and its owner company, its rapid market diffusion contributed by the word-of-mouth phenomenon, as well as the 'first mover advantage' phenomenon (Lieberman and Montgomery 1988), all contribute to an overwhelming majority of the sample respondents regarding i-mode as the industrial standard among all similar products. All these have helped to prop up the sale of i-mode, in spite of its perceived high price among the sample respondents. In fact, as price is a measure of the product's value in the eyes of its consumers (Hart and Tzokas 2000), one can argue that NTT DoCoMo's premium pricing strategy enhances its high-value brand image, while still affordable by and not putting off potential consumers.

The other major factor of i-mode market success can be the positive feedback and lock-in phenomenon. All the factors noted above, such as nicely conceived product concept and effective promotional message, have made i-mode highly popular among the young Japanese consumers. The more popular i-mode becomes, the more people adopt it and the greater motivation NTT DoCoMo devotes to further improve it. Thus, the positive feedback phenomenon sets in as the majority of the users (76% of the sample respondents) who are satisfied with the improved service are involved in a chain of word-of-mouth recommendation to/by someone, and its popularity spreads further. This helps to attain the critical mass of adoption of the new product at an earlier stage (Vandermerwe 1997). As a consequence, consumer choice becomes locked in (Arthur 1994) as more than 70% of respondents note that they would continue to buy another i-mode or its updated version next time.

It follows from the above to argue that the success of i-mode has been brought about by a successive chain of key factor-events from nicely conceived product concept through targeting the right audience to the positive feedback and lock-in phenomenon. Obviously each of these positive factor-events contributes in varying proportions to i-mode gaining a strong foothold in the marketplace. However, this study would conjecture that it could be this whole chain of factor-events, which proceed synergistically, which enable i-mode to achieve overwhelming dominance.

Although this study provides some empirical insights into the success of a particular product, it has only looked into the after-launch phase from a retrospective perspective. As suggested previously, the core product concept is a key factor of i-mode market success. A follow-up study of the pre-launch phase, including the product development stage, could uncover additional key success factors of the product.

Additionally, since this study addresses a single product in a particular country setting, results of this study may not be smoothly generalised to other products and countries. For example, while an innovative core product concept which meets potential consumer needs would be instrumental to new product success in a rapidly evolving market such as the mobile communication market for younger innovative consumers, it might be much less important in a well settled market such as the food market for elderly consumers. The positive feedback phenomenon would be a key success factor in a collectivist society like Japan, but might be less conspicuous in an individualistic society. To clarify these doubts, cross-national study in these regards could be conducted in future.

This study does not develop an integrated conceptual or definitive model to examine the success of i-mode in the Japanese market. However, it has suggested a number of contributory factors, as well as the synergistic dimensions of the functioning of all these factors, which as a whole could explain the product success to a large extent. Future studies can address and testify these suggested contributory factors and synergistic dimensions by using a quantitative modelling approach.

ENDNOTES

¹It is assumed that the rest of the products neither succeed nor fail.

²NTT DoCoMo is a subsidiary of Japan's incumbent telephone operator NTT, whose majority of shares is owned by the Japanese government.

³Yet it has to be acknowledged that there is a limit of the word-of-mouth effect – it would be reduced when a well-defined prior impression is available from memory or when extremely negative attribute information is encountered (Herr, Kardes and Kim 1991).

REFERENCES

1. Ayers, Doug, Robert Dahlstrom, and Steven J. Skinner (1997) An exploratory investigation of organisational antecedents to new product success, *Journal of Marketing Research*, 34(February), p.107-116.
2. Cooper, Robert G. (1994) New products: the factors that drive success, *International Marketing Review*, 11, March edition, p.60-76.
3. Cooper, Robert G. and Gravin, Robert (2001) *Winning at New Products: Accelerating the Process from Idea to Launch*, 3rd edition, Cambridge, Massachusetts: Perseus.
4. Crawford, C. Merle (2003) *New Product Management*, 7th edition, Boston: McGraw Hill.
5. Davidow, William (1986) *Marketing High Technology: An Insider's View*, New York Press.
6. de Chernatony, L. and McDonald, M. (2003) *Creating Powerful Brands*, 3rd edition, Oxford: Elsevier/Butterworth-Heinemann.
7. Dhebar (1996) Speeding high technology, meet the walking customer, *Corporate Strategy*, Vol.37.
8. Edgett, Scott, David Shipley, and Giles Forbes (1991) Japanese and British companies compared: contributing factors to success, *Journal of Product Innovation Management*, 9(1), p.3-10.
9. Eurotechnology (2005a) i-mode: 40+ million subscribers and 3000 companies, Eurotechnology, site accessed: <http://www.eurotechnology.com/imode/index.html> on 7 April 2005.
10. Eurotechnology (2005b) The unofficial independent imode FAQ, Eurotechnology, site accessed: <http://www.eurotechnology.com/imode/faq.html> on 11 April 2005.
11. Frengle, Nik (2002) *i-mode – a Premier*, New York: M&T Books.
12. Gowrisankaran G. and J. Stavins (2004) Network externalities and technology adoption: lessons from electronic payments, *The Rand Journal of Economics*, 35(2), p.260-276.
13. Hennig-Thurau, Thorsten, Gianfranco Walsh and Oliver Wruck (2001) An investigation into the factors determining the success of service innovations: the case of motion pictures, *Academy of Marketing Science Review*, p.1.
14. Herr, Paul M., Frank R. Kardes, and John Kim (1991) Effects of word-of-mouth and product-attribute information on persuasion: an accessibility-diagnostics perspective, *Journal of Consumer Research*, Vol.17.
15. Ittner, Christopher D. and David F. Larcker (1997) Product development cycle time and organisational performance, *Journal of Marketing Research*, 34(February), p.13-23.
16. Lieberman, Marvin B. and David B. Montgomery (1988) First mover advantages, *Strategic Management Journal*, 9 (January/February), p.41-58.
17. Moore, Geoffrey (2002) Crossing the Chasm: Marketing and Selling Technological Products to Mainstream Customers, Capstone.
18. Moorman, Christine and Anne S. Miner (1997) The impact of organisational memory on new product performance and creativity, *Journal of Marketing Research*, 34(February), p.91-106.
19. NTT DoCoMo (2005) Subscriber growth, NTT DoCoMo, site accessed: <http://www.NTTDoCoMo.com/companyinfo/subscriber.html> on 7 April 2005.
20. Sanda (2000) Japanese i-mode, *Business Week*.
21. Sarin, Sego and Chanvarasuth (2003) Strategic use of bundling for reducing consumers' perceived risk associated with the purchase of new high-tech products, *Journal of Marketing Theory and Practice*, Vol.11, Issue 3.
22. Song, X. Michael and Mark E. Parry (1997) The determinants of Japanese new product successes, *Journal of Marketing Research*, 34(February), p.64-76.

23. Zirger, Billie Jo and Modesto A. Maidique (1990) A model of new product development: an empirical test, *Management Science*, 36(7), p.867-883.

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