Characteristics, motivation and factors influencing tablet computer early adopters and early majority

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Abstract

The integration of the popular innovation diffusion theory and the recent tablet computers adoption process has not yet been covered in an academic study. This research aims to provide insight into the characteristics and motivations of two tablet computer consumer segments among business students in UK: early adopters and early majority. It also investigates the factors influencing their behaviour in order to gain understanding how the chasm between these segments can be overcome. This article used interpretivism as a research paradigm and induction as a research approach. It utilised theoretical analysis of the characteristics, motivation and factors influencing tablet computer of early adopters and early majority. The research was designed as an exploratory case study with elements of descriptive research, whilst the data were collected through desk research and in-depth interviews. The findings show that early adopters carry the traits of 'experiencers' and 'innovators', whereas early majority possesses the traits of 'strivers' and 'achievers' according to VALS™ classification.

Key words: early adoption of technology, tablet computers, early adopters, early majority, Maslow’s hierarchy of needs, consumer psychographic types
Introduction
The tablet computer market was created when Apple’s iPad was launched onto the mass market and quickly gained momentum and experienced fast growth. Recent research showed that tablet computer ownership among Internet users has increased to 13% in January 2012 (Mintel Oxygen 2012) and the number of Internet users who intend to purchase a tablet has risen to 24% in December 2011 (Mintel Oxygen 2011b), putting this fast growing market on a critical threshold between early adopters and early majority in the new technology diffusion process. According to Moore (1991), there is a particular gap - a chasm - between the early market of innovators and early adopters, and the more practical mainstream market of early and late majority. Even when strategies are well thought-through, many young products fall into this chasm and never reach their potential in the mainstream market.

Tablet computer markets are recently emerged and relatively new to the world of academia. There is not sufficient academic work to support marketing managers in understanding the characteristics, motivations and factors influencing early adopters and early majority segments. This paper seeks to meet this need by synthesising existing theories and investigating early adopters and early majority segments in UK markets. Using a sample of undergraduate business students in London universities, this paper will examine the attitudes and behaviours of early adopters and early majorities; to understand the process that leads to the recognition of need and justifications for investment of new technologies by both segments; and finally to investigate the factors that influence the decision making process of both segments.

Literature Review
Tablet computers are uniquely different from traditional laptops and are not designed to replace them. Hence, marketers cannot employ the same techniques to attract their target customers. The nature of tablets is seen as content consumption (Liao 2011) and while traditional computers are seen as a necessity, the general consumer perception of tablet computers is of a personal luxury item used for relaxation and entertainment.

Diffusion of innovations theory by Everett Rogers used in this paper to understand how and why new technology adoption happens and what influences early adopters and early majority’s decision to embrace it (Varleye and De Marez 2005). Adoption process can be presented as following a normal distribution extended over time. It starts slowly with a few people adopting the technology, and progresses to a peak with more and more people getting involved until it diminishes as fewer people remain in the non-adopter category. This time
perspective allows for distinguishing five different types of adopters depending on the time they start to use the new technology: innovators, early adopters, early majority, late majority and laggards (Rogers, 1983). See Figure 1.

Two of Rogers’ adopter categories (early adopters and early majority) are relevant to the current stage of tablet computer adoption. *Early adopters* are described as those who are keen technology lovers whereas *early majority* is associated with the more profitable rational mainstream market (Olson *et al* 2005). Tablet computers strive to cross the threshold of the early adopter to the early majority markets to maximise their profits. Unfortunately, many products have failed to cross the chasm and tablet computers may not be an exception (Moore 1991)

Source: Adapted from Rogers 1995

**Figure 1: New technology diffusion model**

Different characteristic patterns are associated with both early adopters and early majority category. Although both segments are relatively similar in age (Rogers 1995), early adopters better education, social and career status; higher income; and more experience with other technology (Dickerson and Gentry, 1983).

Research was later expanded into communication characteristics, personalities, experience seeking and the social context as part of adopters’ lifestyle (Kangis and Rankin 1996). For example, Baumgarten (cited in Midgley and Dowling 1993) investigated the source of information used by consumers and identified a group of ‘innovative communicators’ characterised by their desire to adopt new products without the need of support from their social circles. Innovative communicators usually take part in the early experimentation with the innovation and then inform the rest of their peers about the benefits of using it. Highly innovative consumers are likely to be impulsive by nature, risk-takers, prone to approach innovations early in their diffusion cycle and ‘dive in’ the experience of trying them.
Evidently, the innovative communicators share demographic characteristics of innovators and early adopters.

Varleye and De Marez (2004) identified a segment that shares demographic characteristics with Roger’s early majority category. This segment is influenced by third parties (e.g., innovators and early adopters) and often subjected to so-called ‘copy-behaviour’. Varleye and De Marez supported Roger’s technology diffusion model that the adopting behaviours are initiated when the early majority copies the early adopters and the late majority, in turn copies the early majority.

Copy behaviours are also linked to personal innovativeness – “individual’s willingness to adopt new technology” (Agarwal and Prasad, 1998). The lower level of personal innovativeness is, the stronger the level of copy behaviour. Highly innovative early adopters do not necessarily base their decision on the concrete advantages of using the new piece of technology but act as visionaries and trend-setters. On the other hand, individuals lower in personal innovativeness like early majority carefully reflect on motives, reasons and consequences of adopting new technology (Agarwal et al. 1998). They are willing to buy only when the product has a proven track record and well-established endorsements (Kippenberger 2000). Therefore, early majority’s dominant characteristic could be described as ‘deliberate’ (Rogers 1995) - pragmatists ‘driven by a strong sense of practicality’ (Kippenberger 2000), consider risk as unappealing and try to avoid mistakes. See Figure 2.

![Diagram](image)

Source: Developed for this paper

Figure 2: New technology diffusion model, personal innovativeness and copy behaviour
Broadly put, the segment of early adopters seeks the excitement of new experiences and knowledge whilst early majority is attracted by clear benefits, security, well-referenced and durable products (Waldman 2010). Table 1 puts early adopters and early majority characteristics in juxtaposition.

**Table 1: Early adopters and early majority**

<table>
<thead>
<tr>
<th>Early Adopters</th>
<th>Early Majority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology focused</td>
<td>Not technically focused</td>
</tr>
<tr>
<td>Proponents of revolutionary change</td>
<td>Proponents of evolutionary change</td>
</tr>
<tr>
<td>Visionary users</td>
<td>Pragmatic users</td>
</tr>
<tr>
<td>Trend-setters</td>
<td>Followers</td>
</tr>
<tr>
<td>Project oriented</td>
<td>Process oriented</td>
</tr>
<tr>
<td>Willing to take risks</td>
<td>Averse to taking risks</td>
</tr>
<tr>
<td>Willing to experiment</td>
<td>Look for proven applications</td>
</tr>
<tr>
<td>Individually self-sufficient</td>
<td>May require support</td>
</tr>
<tr>
<td>Tend to communicate horizontally (focused across disciplines)</td>
<td>Tend to communicate vertically (focused within a discipline)</td>
</tr>
</tbody>
</table>

*Source: Adapted from Geoghegan 1994*

Crossing the chasm between innovation-loving early adopters and the risk-averse mass market early majority is a simple but powerful concept (Olson et al 2005). It involves choosing highly receptive niche market in the introduction stage of the product life cycle and then moving to the mass market after the niche is reached and explored (Moore, 2007). Each adoption consumer segment has different meaning to marketers. Hence, addressing the differences between early adopter and early majority in diffusion strategies development can greatly enhance the integration of new technology. See Table 2.
Table 2: Meaning for the marketer and the technology diffusion process

<table>
<thead>
<tr>
<th>Early adopters</th>
<th>Early Majority</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Sufficiently larger number</td>
<td>• Unique link in the diffusion process between very early and relatively late innovation adopters (Wilson and Walker 2004)</td>
</tr>
<tr>
<td>• More integrated part of the local system than are innovators</td>
<td>• Reaching the early majority means crossing the chasm and continuing the copy behaviour.</td>
</tr>
<tr>
<td>• Social accessibility and mentality closer to the rest of the adopters</td>
<td>• Key to profits and growth as a sufficient part of the market (34%) (Rogers 1995) if the diffusion follows normal distribution curve (Kippenberger 2000).</td>
</tr>
</tbody>
</table>

Carr Jr. (2011) proposes five need-based diffusion strategies which can be used to cross the chasm (See Figure 3) to secure innovation’s success.

Source: Adapted from Carr Jr. 2011

Figure 3: Summary of Carr Jr.’s need-based strategies

Humans develop specific needs in order to adapt to their surrounding environment (Maslow 1943). They are seen as perpetually wanting creatures, always possessing some types of unfulfilled needs (Oleson 2004). Sometimes satisfying a need requires dealing with and enhancing one’s perception of one’s self. Thus the concept of extended self is relevant at this point. Extensive research supports the idea that we are what we have (Belk 1988; Feirstein 1986; Rosenbaum 1972). And the meaning consumers attach to possessions is one of the keys to understanding it (Belk 1988). If possessions are things we call ours, James (1990) implies that we are the sum of our possessions. Consequently, the choice of brand, price bracket,
design or model and even the time of the purchase potentially could have relation to the value of a product and thus affect consumer behaviour. The objects possessed and consumed by people are wanted because they tell these people things about themselves. These are things they need to hear in order to be content. Simply put, having and being are different but inseparable things, because people pursue, express, endorse, and ascertain a sense of being through what they have (Sartre 1943). This information includes the social recognition that follows upon the display of status symbols. Consumers may impose their identities on possessions and possessions may impose their identities on consumers. Based on Maslow’s hierarchy of needs and the extended-self theory, this paper examined the situation when unconscious behaviour is replaced by consciously felt want to see whether this explains why under given circumstances a desirable incentive may satisfy a need for some segments, while other segments may completely disregard it.

**Research Methodology**

Interpretivism was chosen as research paradigm and multiple dimensions of tablet computer adoption were investigated. The interpretivist perspective addressed the need to use case studies, seeking to understand the multiple influences on marketing phenomena, the intrinsic details of individual cases and the differences between groups (Malhotra and Birks 2007). It also enabled evolving research design - learning and adapting each step of the research process based on findings. The inductive research approach followed the interpretivist perspective. It matched the objectives of the current research and the desire to generalise the findings to different contexts, to move from the specific cases to the more general. The study drew upon the variety of techniques and the flexible manner, encompassed by qualitative methods and qualitative data added ‘depth, detail and meaning at very personal level of experience’ (Patton 2002: 17) where decisions were made and enacted.

The population of this research consisted of seventeen London business students who had already purchased a tablet computer or expressed interest in purchasing by the end of 2012. Business students were chosen as target population due to the potential future profitability of this market. Each respondent was screened before taking part in the research. The process was based on three questions: attendance of university business course, individual's possession of or intention to buy a tablet computer and the time of purchase. Recruitment was done in two stages. It involved judgement sampling in the first stage and snowball sampling in the second stage. Both were chosen in order to improve the
representativeness of the sample and ensure that the research deals with cases rich in information and insight.

Semi-structured in-depth interviews were conducted. They relied on balanced dialogs, projective and enabling techniques and creativity to extract more valuable data (Cooper and Schindler 2008). The ultimate goal was to establish who these technology consumer segments were in psychographic context and why they chose to buy their tablets. The in-depth interviews were analysed with thematic analysis using methods and techniques commonly used in disciplines such as psychology, sociology, social psychology, linguistics, semiology and ethnography (Cooper and Schindler 2008; Sykes 1990). In order to ease the data analysis, projective techniques were used as well as VALS™ online questionnaire (Strategic Business Insights 2012a, b) which helps generate the psychographic type of the respondent.

**Key Findings**

**a) Psychographic Types and Social groups:**

All early adopters who participated in the study can be classified as experiencers as their primary VALS™ type with innovators as secondary (See Figure 5). This makes them highly resourceful, impulsive consumers who value premium quality and entertainment (Strategic Business Insights 2012c, d).

The results for early majority are not as definitive. The most common primary types are *strivers* (40%) and *achievers* (30%) with secondary types spread between *innovators* (40%), *experiencers* (30%) and *achievers* (30%) (See Figure 5). They are unlikely to be as resourceful as early adopters but they aspire to have their lifestyle and behaviour (*Detailed descriptions are available through Strategic Business Insights 2012c, d*).

Early adopters’ social circles demonstrate higher social class and higher level of employment as white collar workers whose parents are in high managerial and professional occupation. However, early majority whose parents’ jobs range from manual workers to managerial positions, are more likely to be restricted to communicating with lower social classes and having lower level of employment and percentage of office jobs.

**b) Factors Influencing Attitudes and Decision Making Process**
General technology usage

All respondents have stated that they own and use a smartphone, at least one laptop / desk computer and a modern TV. Most early adopters also have experience with modern cameras, 3D TV and Sky+, TiVo or Apple TV. They spend longer hours working on a computer and use more different computer devices throughout their daily activities. Thus, it could be concluded that heavier technology users are more likely to adopt tablet computers earlier than lighter technology users.

Considered features and sought benefits

Five themes related to product features and benefits sought have been identified. They are brand, price, ease of use, technical performance, perceived usefulness and innovativeness/newness. Brand and innovativeness/newness are the two leading factors that influence earlyadopters’ decision to buy a tablet. Innovativeness/newness is related to technical performance and ease of use. The least important factor is perceived usefulness. The leading factors in early majority’s decision to buy a tablet are price, perceived usefulness and ease of use, followed by brand and technical performance. Interestingly, innovation/newness comes last. It is important to point out that convenience and entertainment are recognised as unique benefits of tablet computers by both early adopters and early majority. Besides, apart from convenience (a functional benefit), all other factors
are related to either emotional or status because they trigger the desire to possess the tablet computer. Another interesting finding is the status of Apple among the rest of tablet computer manufacturers. This study confirms that Apple is aspirational brand and strongly associated with emotional connection, prestige, status and luxury. Apple’s tablets appear to have drawn the attention of both early adopter and early majority segments and triggered purchases or at least interest. Furthermore, individuals who had never had interests in technology, have
developed particular interest in Apple products and become early adopters of tablet computers.

c) External influences and attitudes to new technology

This study also found that early adopters of tablet computers see new technology as engaging and challenging, making life easier and more exciting. They are mostly influenced by adverts and PR publications, which effect is enforced by early adopters’ cognitive needs. Their active interests in the field have stimulated the desire to learn, try and buy a tablet. In contrast, new technology does not appear to be an important part of early majority’s personal or social life. Their attitudes are influenced by their peers’ opinions, actions and experiences with new technological products. For this reason, they need longer time to notice a product, develop interest, find the necessary information, evaluate the possibilities and finally purchase.

d) Motivation to Purchase a Tablet Computer

The need to buy first

Early buying behaviour among early adopters is directly provoked by the desire to explore and enjoy the newest technology (satisfying cognitive, aesthetic or self-actualisation needs). However, they act more rationally than innovators (New Technology Diffusion Model) and need to justify the investment. This makes them a bridge between the segment of innovators and early majority and essential part of the tablet computer diffusion process. Early majority see early buying, particularly of tablets, as ‘indulgence’ ‘unnecessary’ and ‘unreasonable’. Therefore they can only approach such a purchase when the practical benefits have become clear to them (showing their need of reassurance).

Need satisfaction

The results suggest that tablet computers satisfy early adopters’ self-actualisation, cognitive, aesthetic and esteem needs. The less financially capable early majority segment seeks to satisfy their belongingness needs, esteem needs, cognitive needs and aesthetic needs.

e) Self-expression through possessions

Early adopters believe that possessions are all-important to expressing who they are while early majority see this approach as superficial and incorrect.
Discussion

a) Early adopters

Based on VALS™/psychographic framework, early adopters possess the psychographic traits of experiencers and innovators—highly innovative risk lovers who approach new products and concepts in their search of fun and entertainment (Strategic Business Insights 2012c, d). This result agrees with the study carried out by Geoghegan (1994) who describes early adopters as visionaries and proponents of revolutionary change. Their high willingness to adopt new technology without seeking support from members of their social circle makes them ‘innovative communicators’ (Midgley and Dowling 1993) with high ‘personal innovativeness’ (Agarwal and Prasad 1998) and low copy behaviour inclination. Their peers are both sources of quality information and direct competitors who stimulate early adopters’ inner-drive. The active interests that early adopters hold in the field of new technology potentially affect their purchasing decisions, making them more likely to buy a tablet earlier than the average technology user. This may relate to their personal innovativeness, as discussed, the type of benefits sought and unsatisfied needs.

The features and the type of benefits early adopters look for may be affected by their psychographic type and better socio-economic status. Their preference for upscale premium brands is not entirely conscious. Their choice is a result of class-based behaviour which is not always deliberate but more habitual (Bourdieu 1984; Jenkins 1992). Bourdieu (1984) informally calls this ‘feel for the game’. The prestigious high-end brands and superior technical performance do not symbolise status or power but express their taste, independence, and personality (Strategic Business Insights 2012c, d). They believe that possessions are all-important to self-expression - confirming Sartre’s theory of evaluating personal worthiness and success through possessions (1943). The only way to knowing who someone is, is by observing what they have. Early adopters agree that they communicate their personalities via the possession of recognised brands and high quality products. Tablet computers satisfy different needs at the top of the pyramid. The exploration of the new product satisfies cognitive needs, whereas the nice design – aesthetical, and the way it fits in users’ lives – meet self-actualisation needs. The combination of self-actualisation needs and the experiencer psychographic type was identified as trigger for early buying. There appears to be enough evidence to link this phenomenon to the concept of having and being (Sartre 1943) and the idea that objects can make us more content (Marx 1978).
Finally, early adopters’ benefits seeking and usage behaviour may be partially influenced by the type of needs they try to satisfy. Good quality brand, uniqueness and entertaining value, which respondents recognised as the most attractive characteristics of their tablets, clearly offer the emotional and status benefits which they appreciated in the devices. Although function benefits might not be their top priority, these busy students still recognised functional benefits in the ease of use and the convenience of the product.

b) Early majority

According to VALS™ psychographic framework, early majority carries the psychographic traits of strivers and achievers. Hence, they are fun loving and impulsive consumers who are, on average, less resourceful than their counterparts of the early adopters (Strategic Business Insights 2012e, f). This finding is not consistent with the discussed literature which describes early majority as averse to risks and more reluctant to approach new technology. However, probable explanation is that early majority are more likely to be impulsive only when there is not high risk of financial loss or unfavourable long-term engagement. Their playful nature manifests itself in their choice of clothes, bars and restaurants, and food and drinks. However, when it comes to technology, they are more likely to be pragmatic, prefer proven applications and need support during the adoption process (Geoghegan 1994; Rogers 1995; Kippenberger 2000). This shows that the psychographic types in the early majority segment are not so diverse, but the individuals in it are multi-faced with multi-identities (Mintel Oxygen 2011c).

Early majority’ psychographic type and socio-economic status are different from those of early adopters so they seek different benefits. They appreciate value for money, high usefulness and ease of use. Achievers recognise how the latter two can contribute to the achievement of their goals, while strivers avoid products that challenge them intellectually or involve risk of failure (Strategic Business Insights 2012e, f). Risk aversion could be caused by lower confidence, poor knowledge or modest financial resources. The lack of interest and knowledge makes the respondents dependent on their peers’ opinions, actions and experiences when it comes to new technological products. For this reason, it is possible that marketers will need more time to push this segment through the sales funnel. In general, early majority has different ‘feel for the game’. Their aspirations to act like early adopters are impeded by various financial, lifestyle or intellectual reasons. Therefore they are forced to look for functionality, ease of use and perceived usefulness.
Most early majority respondents expressed hope that tablet computers would become more functional and cheaper. They planned to purchase one with recognised brand name and proven quality once they found a professional job because they needed reassurance for the usefulness of their purchase and a way to fit in their new environment. Undoubtedly, the benefits that early majority looks for are related to the needs they try to satisfy. From the above, it could be argued that the possession of a tablet computer will satisfy belongingness needs and esteem needs at first place and then may continue climbing up the hierarchy. Additionally, these respondents passionately described expression through possessions as superficial. It could be argued that this attitude is result of cognitive dissonance (Perloff 2010). As early majority have not been able to buy what they want and deserve, they have developed negative attitude towards expression through possessions.

c) Apple as an aspirational brand

Apple branded tablets were recognised by both segments as the most advanced from technological perspective and status symbol whilst the brand was seen as aspirational and luxurious. iPad models were described as multi-levelled products, catering for various needs, standing out as a separate product category and driving the technological innovation. The brand name is a strong cue to assess the prestige of a purchase (Brucks et al 2000). On the other hand, the combination of functional, emotional and social components of iPad gives the product multiple values and dimensions, which are more attractive to consumers than single attributes (Sweeney and Soutar 2001). Apple is associated with high performance, innovation, exclusivity and high status. In the context of the extended self, iPad owners associate themselves with their possessions and transfer their tablets’ characteristics to themselves. As a result, they satisfy the need to constantly improve their lot and actualise themselves.

Limitations
The above findings should be considered within the limitations of this research. The limitations stemmed from the chosen paradigm, exploratory nature of the research, the data collection techniques and the time and finance restrictions. This paper acknowledged these limitations and reached conclusions without ‘complete evidence’ (Malhotra and Birks 2007). Based on the nature of inductive research approach, the generated conclusions are just hypotheses (Cooper and Schindler 2008) which could provide platform for thematic analysis and eventually lead to grounded theory regarding early adoption of tablet computers (Hunt
The grounded theory, in turn could be tested in positivist paradigm to confirm or reject the findings.

**Conclusion**

The results from this study could be used by marketers, manufacturers and retailers to enrich their understanding of the tablet computer market and business student as consumers. Students could be targeted as a lucrative segment both in the present moment and in future. As students grow in their careers so will their spending power. If strong relationships and brand conviction are created now, then in the long term the lifetime value of these customers is likely to be high. In order to reach the early majority segment, marketers should consider repositioning the tablet. Currently, this segment sees tablet computers as status symbols and irrelevant to their lives. Therefore functionality and ease of use should be priority in future product development and marketing campaigns. However, luxury status could be saved by using exclusive student offers.

Regarding specific product benefits, direct and digital marketing could be used to reach consumers effectively and engage them on more personal level. In addition, retailers can offer customers the option to use short computer-based questionnaires which are linked to the available product range and shortlist the most suitable 5 tablets according to customer’s answers. This could help eliminate the fear of making the wrong decision, shorten the diffusion process and enhance brand differentiation. The analysis developed in this current publication may be combined with product features and used as part of the background information of such a project.
References


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