VIDEO GAME PROVISIONING
FOR THE INDIAN TELECOMMUNICATIONS INDUSTRY:

MARKET ANALYSIS

by

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ABSTRACT

This strategic analysis examines market potential and strategic options for entry for a developer of computer games into the market for mobile telephone games in India. The issue is examined from the perspective of Radical Entertainment, a Vancouver-based computer game developer. As the video game industry braces for the market turbulence expected to result from the introduction of the next-generation console platform, Radical Entertainment Inc. has been compelled to reassess its current strategic position and consider possible market diversification. Analysis will illustrate Radical Entertainment’s strategic position and extrapolate a market development strategy congruent with both its internal and external conditions. The analysis concludes with recommendations that Radical proceed with an Indian development exercise on the basis of a larger Asian development strategy and part of a wider R&D effort, proceeding into the cellular space, specifically, should a provisioning agreement with an Indian telecommunications organization include market access assurances and protection.
DEDICATION

To my Mum and Dad whose own journey has charted distances I can only imagine, whose example has made me want to try.
ACKNOWLEDGEMENTS

I want to thank Richard Smith, Michael Parent, Jay Balakrishnan, Danielle Michael, Michael Ockenden, and Penny Simpson who have all supported the writing of this thesis.

I especially want to thank my loving and supportive wife, Sarah Lucas, who continues to be my shining light. With her I am never lost, but forever found.
How can the mind take hold of such a country? Generations of invaders have tried, but they remain in exile. The important towns are only retreats, their quarrels the malaise of men who cannot find their way home. India knows their trouble, to its uttermost depth. She calls “Come” through her hundred mouths, through objects ridiculous and august. But come to what? She has never defined. She is not a promise, only an appeal.

E.M. Forester - A Passage To India
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PREFACE

Radical Entertainment (RE) is a Vancouver-based video game company that has, over the course of the last fifteen years, distinguished itself as a pre-eminent ‘pure developer’ of video games for game consoles like the Microsoft Xbox and Sony Playstation. RE’s aspirations form the basis of the market analysis and business strategy that follows.

RE is currently conducting due diligence and assessing a variety of prospective markets as it considers diversifying its product mix and steering away from supplying for the video game console market exclusively. While it continues to find success developing video games in the console market, the pace of technological advance and the increasingly vertically integrated competition conspires to make the competitive landscape of the console market ever more challenging. As a member of one of the top five successful ‘pure development’ houses in the North America and Europe, RE is likely to continue to maintain competitive advantage in this space. However, with the expected next-generation consoles set for release in 2006 (Fahey, 2004), significant market instability is anticipated including a greater scarcity of quality game titles, or Intellectual Property (IP), and increased production costs without a corresponding increase in willingness to pay at the cash register. As Radical seeks to ease the pressures associated with the circumstances of this strategic position, alternate markets become increasingly attractive.

Two developments have brought the Indian cellular game market into acute focus. The first, is the relationship established between RE’s management and Indian-
based Intent, an organization comprising the talents of Shekhar Kapur and Deepak Chopra. The second development concerns the relationship between Intent and Reliance Infocomm (Reliance), a prominent Indian telecommunications firm. At Intent’s urging, RE is set to meet with Reliance to discuss the prospect of establishing a provisioning relationship between the two organizations either with or without the IP derived from Intent’s assets. The analysis that follows is, in part, the due diligence sought to assess the opportunity that provisioning Value Added Services (VAS) for the Indian telecommunications industry might represent to RE.

The market analysis that follows seeks to illustrate and assess the prospective opportunity that provisioning cellular games for the Indian telecommunications Value Added Services sector represents for an organization such as Radical Entertainment.

This assessment shall be conducted based on commonly held principals of business strategy and strategic theory. These theoretical principles of interest stem from the basic premise that Strategy represents the “... direction and scope of an organization over the long term, which achieves advantage for the organization through its configuration of resources within a changing environment and to fulfil stakeholder expectation.” (Johnson & Scholes, 2002, p. 10). (1) Configuration of Resources, (2) Environment, and (3) Direction and Scope, these are the parameters that forms the basis of strategy.

As such, this analysis works to first articulate the current internal configuration of the organization by way of an illustration of the company’s strategic position in terms of its current market of choice and its primary array of resources and competencies (SECTION 1: RADICAL ENTERTAINMENT: STRATEGIC POSITION). Through this overview, the incongruence of these capacities with respect to the introduction of the next generation console is effectively illustrated. It shall be made clear that the nature of
this strategic position points inexorably to some form of diversification and the Indian telecommunications Value Added Service environment a candidate for such diversification ambition. As such, this prospective Indian market is illustrated in its current form and a qualified estimate of its future growth provided (SECTION 2: THE INDIAN TELECOMMUNICATION MARKET). The remainder of the thesis seeks to outline and provide a recommended direction and scope of any such Indian market development strategy (SECTION 3: STRATEGIC DIRECTION AND SCOPE).
SECTION 1:

RADICAL ENTERTAINMENT – STRATEGIC POSITION
1 INTRODUCTION

Given the encroaching market turbulence forecasted to coincide with the release of a next-generation video game console, analysing emerging markets and diversification opportunities is a critical business development exercise currently underway at Radical Entertainment Inc. (RE). With this objective in mind, the well-publicized growth of Asia (See Appendix I) makes this market of particular interest and, as result of developing organizational relationships at RE, the India cellular game market of pronounced interest.

If strategy represents 'the direction and scope of an organization over the long term, which achieves advantage for the organization through its configuration of resources within a changing environment and to fulfil stakeholder expectation,' (Johnson & Scholes, 2002, pp. 10.) then this strategic analysis will begin by illustrating RE's internal configuration and stakeholder expectations (represented by the interests of the corporate executive).

The following overview of RE's internal capabilities will inform the subsequent sections pertaining to the market analysis of the Indian telecommunications sector with respect to these internal capabilities and resource potential and better contextualizes the sections pertaining to strategic 'direction', and 'scope' that rounds out the remainder of the analysis.
2 RADICAL ENTERTAINMENT

2.1 The Company Background

Established in 1991, RE is a privately held company with 208 employees operating out of a 50,000sq foot facility in Vancouver British Columbia, Canada. Of the 1000 video game development organizations operating in North America and Europe, there are approximately ten independently owned pure development organizations\(^1\), of these, RE is among the top five.

RE develops video games for the console market, producing games for each of the top three game platforms including the Nintendo GameCube, Sony PlayStation 2, and Microsoft Xbox. To date, RE has developed 30 game titles primarily for prominent game publishers and hardware vendors. Currently, Vivendi Universal Games (VUG) represents the most notable publishing sponsor with its contract that will see RE develop five console games on its behalf and stipulates that VUG be given an option to buy RE outright at anytime during the development of these five titles.

Based on interviews with executives at RE, VUG’s interest in buying the organization is an underlying factor for RE and its corporate decision making process. At the business level, however, the effort to forge competitive advantage, seek diversification avenues, and develop alternate market development strategies proceeds regardless of VUG’s possible buy-out; this analysis representing a case in point.

\(^1\) A ‘pure development’ firm is an industry term denoting those development organizations that produce game content without engaging in retail or publishing activity.
2.2 Organizational Structure

RE is organized with a flat internal structure that has influence and resources shared evenly between the executive of the firm and its five production teams. This structure places a strong emphasis on the project nature of the organization with each of the five game development teams negotiating and directing organizational resources based on the evolving needs of their respective projects. This is a free market type of structure that forces the firm to continually assess its priorities across the organization and creates a strong impetus to innovate, conduct due diligence in assessing market opportunities and ensures teams are incented to have game projects come in on time and on budget.

The challenge for RE is to maintain the same economies of scale and scope found in a larger more centralized firm (such as Electronics Arts for example). In an effort to ensure efficiencies with respect to knowledge management and resource sharing, weekly cross team production meetings are strictly observed.

It seems likely that this same structural philosophy would form the basis of any effort to build further diversification in operations through acquisitions or joint ventures with external organizations. The same free market economic philosophies would apply.

With respect to the development of a cellphone game competency or other diversification efforts that diverge significantly from its core business model, RE is likely to adopt a relationship with an external game team or developer, likely operating under an alternate brand (as it has done with some if its more atypical console titles such as CSI, released under the '369 Terminal' Brand). While this approach may dilute RE’s control and profit potential, it would also dilute the risk, by keeping internal team focussed on console game design, while maintaining the free market culture through-out the organization at large.
2.3 Company Business Model

The organization earns revenues through agreements with sponsoring publishers. The primary source of revenue comes in the form of a non-refundable advance paid by the publisher against estimated future retail revenues. While RE does fund some of its own development, by and large, RE relies on the royalty advance. These royalties are negotiated on a game-by-game basis, but usually fall between 10-12 percent of the retail revenues with the remainder split between the publisher and the retailer. This revenue is usually intended to cover production cost with only a slight margin factored into the negotiated agreement.

The primary advantage to this business model is the mitigation of risks that would otherwise result from self-funding the development of a game title. With a publisher's upfront advance, RE is guaranteed to cover its development costs regardless of the future retail success of the game. While the mitigation of risk makes the model attractive, it does significantly reduce the share of retail revenues in the event that a title does exceed expectations. Put simply, with less risk there is less reward.

Revenues may also derive from royalties that occur when the product sells more units than projected, also called straight royalty revenues. In this case, RE earns revenues on every unit sold in perpetuity. Given the relatively small remuneration above production costs usually found in the advance payment, the over-riding priority must be to do better than simply break-even. Only by developing hit titles, therefore, can RE create a basis for growth.

Cellular game development represents a departure from this core business and operational models. In fact, very little similarity exists between these two industries. Not only are the distribution channels dramatically different and the nature of contracted game development agreements all but non-existent in the cellular space, but also the
nature of the actual development of a cellular game makes little use of the specialized
game development competencies perfected by RE to date. But given the strategic
position of the organization, RE’s future growth aspirations may depend on beginning
the movement away from its tradition practices regardless of this dramatic departure.

2.4 Corporate Strategy

RE is in a transitional period. As the video game industry sees more and more
consolidation and publishers become increasingly vertically integrated, an independent
developer like RE becomes increasingly vulnerable. As publishers develop and nurture
their own in-house development, they tend to favour keeping top-notch IP within their
own organization, making it increasingly difficult for RE to secure titles with hit potential.

In addition, the introduction of the next-generation consoles are expected to bring
further increases in production costs primarily as a result of the increased sophistication
that these platforms will demand from the game design. Accounting for these costs will
put further pressure on the necessity to produce hit games. Put simply, the next-
generation platforms will add risk and, assuming there is no increased willingness to pay
at the cash register, increase the difficulty to secure straight royalty incremental
revenues. According to interviews with RE, they expect very little increase in sales price
of next-gen console games relative to the current console game prices.

Although the market is becoming increasingly volatile, ultimately, RE’s strategic
position is relatively secure with its strong market presence, well established brand and
reliable business relationships. However, its ability to grow over the short to medium
term is far more tenuous. At the corporate level, fulfilling the VUG agreement is an over-
riding objective. In addition, barring the sale of the organization to VUG, development of
new emerging markets and the diversification of its product mix are key strategy
objectives. From the perspective of RE’s corporate stakeholders, the growing market potential of Asia in a variety of different theatres is an increasingly compelling prospective emerging marketplace.

2.5 Business Strategy

At the business level, the console market continue to be the primary focus of RE’s competitive strategy, and planning for the introduction of the next-generation console is at the forefront of its focus. Despite these future expected challenges, RE currently enjoys a favourable reputation in the industry and expects continued cash positive performance at least for the foreseeable future. According to interviews held with RE’s executive staff, the organization is perceived to present to the publishing industry a ‘button down’ brand, with a respected degree of professionalism, a track record of successful game development and a strong competency in business-to-business relationship management (demonstrated by its successful relationship with VUG for instance). Furthermore, according to interviews with RE’s executive, management foresees the company continuing to build and protect all of its brands and leverage this reputation, which it shall use to charge a premium for its development services. Action and Racing games, it is said, will continue to be its primary market differentiating product staple.

Other genres and alternate product diversification initiatives, however, will be explored in earnest, likely as extensions of the Radical brand and managed at arm’s length either in-house or externally. Cellphone game market development is one such diversification pursuit.

The methods for realizing these diversification objectives include a combination of several interconnected business development activities including:
- Internal research and design
- Relationship development
- Hosting of technology summits
- Attending industry events concerning the broader video game industry
- Ongoing research with respect to emerging markets
- Acquisitions
- Joint ventures

2.6 Why India and why Cellular Games?

With the recent agreement in principle established in the summer of 2004 between RE and Intent, the Indian-based entertainment group, a very real basis for developing an alternate market outside the console vertical has been presented. What’s more, it presents a tangible window into the larger Asian game market. The Intent group, comprising the talents of a ‘Bollywood’ movie director and an internationally acclaimed author, present RE with the kind of Intellectual Property (IP) capable of appealing to an Indian entertainment market. The IP alone may present a crucial success factor for RE and a potential cornerstone for an Indian market development strategy. After all, RE has seen all of its major titles based on well-established Intellectual Property (eg. The Simpsons, The Incredible Hulk etc). There is good reason to believe, therefore, that this same basis for success would apply to the Indian cellular game market.

As a result of the perceived synergies derived from the Intent/RE relationship, arrangements have been made for RE to meet with Reliance Infocomm (Reliance)\(^2\) to discuss RE’s video game capabilities and Reliance’s needs with respect to supplying their cellular subscribers with billable video games with compelling local Indian appeal.

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\(^2\) A market leading cellular telecommunications organization, Reliance has a subscriber base that represents 22% of the total cellular market, or approximately five million potential gamers (See Appendix IV)
Despite the auspiciousness of these developing Indian relationships, this researcher would encourage RE to continually revisit its core assumptions and take stock of some of the broader questions pertaining to the logic of developing a cellular game competency and departure from its core business. These questions will be addressed more thoroughly in the strategy discussion of Section 3.
SECTION 2:

THE INDIAN TELECOMMUNICATIONS MARKET
3 INTRODUCTION

As market forces continue to exert pressure on game developers such as Radical Entertainment Inc. (RE), a concerted effort is underway within RE to achieve new competitive advantage and secure a share in under exploited markets. The promise of wireless gaming represents one such avenue for development. This is especially true in Asia. Game developers, application developers, wireless telecommunications carriers, handset manufacturers, purveyors of intellectual property, advertisers and the investment community at large, all have a potential stake in this emerging market. China, South Korea and Japan are among the fastest developing cellphone markets, while India is quietly awakening as an economic powerhouse in its own right and joining the ranks of countries with a “mobile culture.” With a rising middle class possessing increasing levels of disposable income and new cellphone subscriptions clocking an impressive two million per month (Slater, 2004), the prospects that the Indian wireless gaming industry presents to a video game development organization such as RE may prove compelling as the following section will illustrate.

In the section that follows, the reader will be provided detail concerning (1) the Indian Cellular market, (2) the corresponding VAS market (3) the underlying Indian cellular game market and (4) a bottom line estimate of RE’s potential share of the cellular game market segment. With the multifaceted telecommunications industry in focus, the section concludes with a study with respect to the competitive nature of the telecommunications industry, the strategic position of the carriers, and the role that VAS and mobile games will play as the telecommunications industry matures.
4  THE MOBILE GAME MARKET: AN OVERVIEW

As the global telecommunications industry on the whole continues to expand at a projected 28.3 percent Compound Annual Growth Rate (CAGR) over the next 5 years (The Hindu Business Line Bureau. 2004), the ancillary VAS is not only projected to keep pace, but actually outstrip that of the primary voice services revenues. With an eye to this future industry growth, provisioning the Indian VAS market, specifically with mobile games, holds significant future prospects for a development organization such as RE.

While the Indian mobile market may only make up a very small portion of the entire world-wide cellular industry, in order of magnitude, potential revenues are still attractive, especially given RE's current strategic position. Furthermore, the relatively recent emergence of this market and absence of entrenched competition creates market conditions particularly well suited for an organization such as RE; an organization without any current market presence in this vertical and only just beginning to contemplate developing cellular phone game competencies.

As the reader considers the following exploration of the wireless game market, it is important to appreciate the relationship of the VAS market with that of the larger telecommunications industry. The VAS market on the whole, at least with respect to India, is subordinate to the strategic position of the larger telecommunications sector and represents a mix of component products used by the telecommunications organizations to (1) garner market differentiation, (2) achieve competitive advantage, and (3) as a growing source of revenue. Cellular games represent one such example of the VAS product mix that also includes, SMS & MMS messaging, ring-tones, wallpapers, trivia
competitions, gambling, video broadcast, and advertising with SMS representing the most significant of these in terms of gross revenues. For 2003, according to Yahoo!, 75 per cent of the data market is still "person to person" messages from mobile phones and only 15 per cent of the Indian wireless data market, worth 256 million dollars, is taken by ringtones and games (Agence France Presse, 2004). As the future of the Indian cellular VAS sector is intricately tied to the fortunes of these telecommunications firms, this analysis will provide necessary detail so as to furnish a thorough understanding of the overarching telecommunications industry and its relationship with the VAS sector within which cellular games are represented. For a summary of the organization of the telecommunications industry, field refer to Appendix II.
5 THE INDIAN TELECOMMUNICATIONS MARKET

5.1 Introduction

While the growth and potential size of the larger Indian telecommunications industry has been growing at breakneck pace and expected to reach 43 Million subscribers (Sharma, 2004), the subordinate VAS market is still relatively small in terms of the carriers' overall revenues with games making up only a fraction of these revenues. Although the VAS sector is intricately tied to the larger Indian Telecommunication industry that is expected to continue to grow at this breathtaking rate, the following analysis is cautious to avoid making too optimistic an estimate of the Indian VAS market potential. India has turned a huge economic corner and the consumer market today is night and day what is was before embarking on her aggressive economic reform process that began in 1991 (wikipedia.org)³. In that context, and in general terms, India does not present an economy that might form the basis of an authoritative trend analysis. More specifically, VAS has only very recently come into prominence as an alternative source of revenue for the telecommunications industry, a fact that makes any sort of future trajectory predictions problematic. In the absence of these historical trends, in terms of buying behaviour of mobile games specifically, or purchasing behaviour of consumer electronics generally, developing the mobile game market should be seen as a relatively risky endeavour requiring of RE a relatively high tolerance for risk should it indeed embark on a market diversification effort of this nature.

³ Since 1991, India has recorded a growth rate above 5%. India’s economy grew at an unexpectedly robust 8.4 percent in 2003 through the third quarter of 2004, making it one of the fastest growing in the world (wikipedia.org)
Still, the revenue growth forecasts for Indian mobile games, however tentative, indicate a rapidly emerging market with huge revenue potentials. Moreover, given the gradual commodification of voice services sector, VAS is seen by industry observers as increasingly instrumental in leveraging a differentiated full-solution offering that can provide the Carrier a basis of competitive advantage. Such a circumstance adds credence to the market forecasts that follow. Moreover, the competitive nature of the Telecommunication industry and the growing relevance of VAS may well play into the hands of a potential VAS provisioning organization like RE.

5.2 Indian Wireless Market: Statistical Overview

5.2.1 Indian Telecommunications Revenues, 2004

*All figures in US Dollars

- Subscribers: 43 Million
- Total Cellular Revenues: $7.4 Billion
- CAGR: 40%:

With as many as 2 million new subscribers every month, the Indian telecommunications industry represents a rapidly growing source of revenue not only for the Telecommunication organizations but potentially the VAS providers as well. The latest data indicates that as many as 43 Million Indians are already cellphone subscribers, garnering the Telecommunication industry an estimated $7.4B (Techtree News Staff, 2004) in revenues annually that is expected to continue to grow at a CAGR of 40 percent until 2007 (Gizmateer, 2004). With a potential subscriber base this size, a game developer, whether currently active in the cellular space or not, is wise to conduct due diligence to assess revenue potential in this vertical.
5.2.2 Indian VAS Market (Including SMS)

- 2003 Percent of Telecommunications Revenues: 5.4%
- 2003 VAS Revenues: $256M
- 2008 Percent of Telecommunications Revenues: 20.5%
- 2008 VAS Revenues: $5B

Although the Indian Telecommunication industry is reporting impressive revenues, the Indian VAS market represents only a portion or just 5.4 percent of the total Indian cellular service revenues for 2003 (Techtree News Staff, 2004) with cellular games representing an even smaller portion of this segment. According to Yahoo!, Indian VAS was estimated to be worth $256 Million in 2003 with SMS traffic garnering 75 percent of this total (Gizmateer, 2004).

Even if revenues are small at present, the future looks far brighter, with Gartner projecting Indian VAS revenues to account for as much as 20.5 percent of total Indian Telecommunication revenues by 2008. That translates into a $5 Billion market (The Hindu Business Line Bureau, 2004). There would be very few markets expected to grow at his pace. Should this projection prove accurate, and the market indeed expands from $256 Million to $5 Billion in five short years, the VAS market then would achieve a dizzying CAGR of approximately 200%.

5.3 Indian Cellular Game Revenues and Trend Analysis

- 2003 Total Revenues (including Ringtones): $38 Million
- 2003 Total Gaming Revenues: $19 Million (see analysis below)
- 2008 Total Gaming Revenues: $125 Million (see analysis below)

While games will represent only a portion of total VAS revenues, in order of magnitude, the overall value of the cellphone gaming market will be significant. This will
be especially true for India with its young demographic; with estimates indicating over 50% of the population is aged under 25 (U.S. Department of Commerce Economics and Statistics Administration, 1997).

5.4 Indian Cellular Game Revenues and Trend Analysis

According to In-Stat, the Indian game market is expected to generate annual revenue of $336 million by 2008. However, In-Stat estimates 2004 market revenues to only represent $26 Million, but attributes its strong growth forecast to “the booming software services sector” and that India is emerging as “a key market in the next big wave of mobile multimedia—both for software developers and consumers.” (Fischer, 2004).

As we shall see in the next chapter, the growing strategic importance of VAS, combined with the increasing sophistication of cellular technology and bandwidth capacity will serve as a basis on which to base such an optimistic view of market growth potential.

**Figure 5.1: Estimated Indian Wireless Phone Market**

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<tr>
<th>Project Indian Mobile Game Revenue (millions of US dollars)</th>
<th>2004</th>
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<td>104</td>
<td>181</td>
<td>259</td>
<td>336</td>
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(Based on: Instat, 2004)

Ultimately, when putting these numbers into context, what is perhaps of greater importance is not the speculated value of the overall market, but rather RE’s ability to secure favourable provisioning agreements with a carrier such as Reliance, to capture
market share, to build competitive advantage and foster barriers to entry; a topic more thoroughly explored in subsequent sections of this analysis.

5.5 Bottom Line Estimate of Market Revenue Potential

Should the estimated 2008 cellular game market in fact come to represent $336 Million, and given that the each of top five grossing Telecommunication companies garner approximately 20 percent of the Telecommunication market (See Appendix IV), then a provisioning agreement with one of these carriers presents RE a market potential of 20 percent of the $336 Million or $67 Million by 2008.

While many of the carriers already have provisioning agreements with independent and subsidiary game developers, should RE effectively compete, this rough estimate suggests a potentially very lucrative proposition. It should also be pointed out, however, that the actual number of games required to represent this $67 Million in revenues will need to be established to better gauge the cost benefit of any such market development initiative. None the less, given these volumes, and given the constant returns to scale peculiar to software in general, significant incremental revenues are implied. The Nature Of The Market: Competition Theory

5.6 The Competitive Relevance of Value Added Services for the Telecommunication Industry

Provisioning the Telecommunication industry's Value Added Services (VAS) sector will become increasingly significant as the voice service industry becomes ever more competitive and revenues derived from voice subscription increasingly eroded by dropping prices. As detailed below, as a consequence of hyper competitive conditions in the Indian mobile voice Telecommunication market place, data-driven VAS are playing an increasingly instrumental role for the Indian carriers in their efforts to establish
competitive differentiation and a means of stemming loss of revenues from its traditional voice services. The opportune time to forge an Indian market presence may well have arrived. Establishing a business-to-business provisioning relationship with an Indian carrier is one route a game development company might choose in an effort to establish a foothold in Asia and the emerging global wireless gaming sector.

5.7 The Data Imperative

As the Telecommunication carrier revenues from voice service continue to plummet, VAS revenues will be sought to shore-up these losses. To illustrate the point, in India, cellular operator's earnings per user have plummeted by 64 per cent over the last five years, and this despite a 53 percent increase in usage (The Hindu Business Line Bureau, 2004).

"For the industry, VAS is the right way forward," said Prashant Singhal, head of Indian telecom practice at consultancy Ernst & Young. "These services improve profitability at a time when average revenue per user is facing intense pressure." Singhal estimates services such as text messages, phone ring tones, news and video clips constitute 8 to 10 percent of revenue for leading operators [in 2004], double last year's proportion. Gartner predicts this trend to continue with VAS revenues projected to comprise 20.5 percent of total cellular revenues in 2008. (Bhatnagar, 2004)

Given this strategic imperative facing the Telecommunication industry, RE will likely find ready and willing carriers to license and/or distribute their games. Furthermore, in light of the critical need for this alternate revenue, a carrier may well be more inclined to negotiate favourable terms for a game developer that can furnish them with the kind of competitive differentiation they seek.
5.8 The Cellular Value Added Services Market (Cournot Oligopoly)

Because very little differentiates the voice service of one carrier over another, the Indian cellular phone industry will likely observe a commoditisation of its voice service and, as a consequence, a steady drop in price. As the voice service market becomes increasingly commoditised, telecommunication carriers will be forced to intensify their pricing differentiation soliciting a further erosion of margins. Given the trends, it is not unreasonable to suggest that at some point voice services alone shall fail to garner incremental revenues. Should this occur, VAS such as video games would likely be the primary sources of revenue growth from operations and voice services, simply a loss leader used to attract subscribers to its applications or media content. VAS, unlike cellular voice services, provide the carrier a means of competitive differentiation; differentiation that should shield it from the same competitive pressure on pricing that is being seen in the voice services sector.

When illustrating a competitive environment of this nature, it is helpful to refer to existing theoretical models such as the oligopoly theory of competition to better understand the current landscape and as a means of predicting what might unfold in future. While the current price war waged within the Indian wireless voice service sector lends itself to a Bertrand oligopoly model, the VAS segment more closely resembles a Cournot oligopoly.

The Cournot oligopoly is defined as an industry where:

- There are few firms producing differentiated or homogenous products
- Each firm believes the other will hold their output constant if it changes its output.
- Barriers to entry exist.

(Baye, 2003, p 313)

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4 Bertrand Oligopoly competition is based on price differentiation (Baye, 2003, p 313)
Unlike the Cournot Oligopoly found in the oil industry for example, supply of mobile voice services is heterogeneous and far more complex. However, like the oil industry, telecommunication organizations affect the value of their content services as a result of their manipulation of supply.

Put simply, as supply increases, prices fall. While the Indian telecommunication industry is still in its infancy and without historical precedents, in the absence of a considerable market consolidation, generally accepted economic theory pertaining to oligopoly suggest that this competitive behaviour is likely to be in evidence for some time to come.

**Figure 5.2: Supply and Demand Illustration**

As the number of applications of a given sophistication flood the market and outstrip demand, prices drop, as a direct result of the burgeoning supply. In theory, this trend should continue until either supply drops, or a carrier introduces a new threshold of technology that shifts the market function.
If the number of applications of a given sophistication define supply, with respect to the Value Added Service sector, what constitutes sophistication? This researcher proposes that application/game sophistication be described by the degree of application functionality, display resolution, processing requirements, and interconnectivity (See Figure 5.3 and 5.4 below). Additionally, in order to facilitate the increasing levels of application sophistication, changes to the underlying infrastructure are also required to meet the bandwidth requirements necessary for the initial game download and/or gameplay. Thus, we have the symbiotic combination of bandwidth, handset capability and application complexity that translates into a given sophistication. Finally, the number of applications of a given sophistication coalesces to form this theoretical competitive supply.

**Figure 5.3: Sophistication Variables**

![Sophistication Variables Diagram](image)

The intent of this model is to demonstrate that unlike voice services, Value Added Services provide a means for a carrier to differentiate and profit over the long term. In theory, this would hold true for both a telecommunication carrier and a content provider such as RE. The key for both these kinds of organizations is to know where the market is at any given point, and either adjust the level of application output or push the sophistication envelope and seek to develop a new competitive landscape where an alternate relationship between supply, demand and application sophistication can be established.
5.9 Recent Developments

Hutchison Essar India (Hutch), part of the Hong Kong-based Hutchison Whampoa empire of tycoon Li Ka-shing, just prior to this writing, issued an announcement stating that the company intends to provide streaming content for its Indian market. Here then is a clear indication that carriers are serious about pushing the
VAS envelope and distinguishing themselves from their competitors in terms of these secondary services:

Hutch launches TV-on-mobile, September 27, 2004

MUMBAI. Mobile telephony service provider Hutchison Essar on Monday launched Hutch TV, a multi-channel, TV-on-mobile service, accessible over its EDGE-enabled network. The service delivers television content from 13 different TV channels, ranging from news and current affairs to business, sports, fashion, travel and entertainment, Hutch COO Harit Nagpal said in a release. (Poropudas, 2004)

While subscribers with handsets capable of receiving Hutch’s new streaming services will still be far from reaching critical mass, a strong signal has been sent.

Reliance, the market dominant CDMA provider, while not pushing the application envelope quite as dramatically as Hutch, has been seeking to gain competitive advantage by increasing capacity. With its announcement in June that it will be rolling out its EV-DO infrastructure, there is every indication that it is serious about keeping ahead in terms of spectrum capacity:

Reliance to launch EvDO services, June 18, 2004

SAN DIEGO: Reliance is set to usher in third generation mobile services in India by deploying CDMA 2000 1X EvDO technology that will enable peak data carriage speed of up to 2.4 megabytes per second. The service will be unveiled over the next six to nine months in a phased manner. Reliance does not intend to upgrade its entire network, but would launch EvDO (evolution data optimized) services in the top metros where it sees demand for high data speeds. (Indiantelevision.com Team, 2004)

With this foray into supplying true 3G capacity, Reliance has sent a strong signal to the industry that it is serious about commanding a market presence as a leader in Value Added Service. Whether it can follow through with comparable data services and develop a market with enabling cellphone handsets is yet to be seen, but clearly they will

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5 A thorough explanation of CDMA and EV-DO and the many other varieties of cellular networks and their respective bandwidth capacities can be found at http://www.nortelnetworks.com/products/wireless/cdma.html
be strongly incented to demonstrate their spectrum advantage by supplying their
customers with applications of corresponding technological sophistication. A carrier with
Reliance's strategic position is likely to be strongly inclined to negotiate a provisioning
agreement on the basis that RE's proven track record in translating good IP into terrific
games within the console space can be translated into the cellphone market.

5.10 A Question Regarding Handset Technology Proliferation

Given the relatively low uptake of handset technology capable of supporting the
emerging plethora or graphically intensive VAS and the implied lack of customers base,
the question that must be posed is, who will shoulder the cost of providing the
graphically intensive applications that might induce a corresponding uptake of
graphically intensive applications in the absence of intervening revenues? Given the
crucial necessity of increasing VAS revenues, as previously stated, not to mention the
competitive protection garnered through increasing switching costs gained by way of
colour handset subsidy agreements, the onus to overcome this challenge would appear
to be on the carriers themselves. The relative bargaining position for a VAS provider
such a RE is, therefore, particularly favourable.

While market revenue projections remain relatively optimistic, troubling questions
remain. For instance, if non-SMS VAS is to represent a revenue generating model, then
there must be a presumption that subscribers will not only fuel an uptake of technology-
ready handsets but that these same subscribers be willing to pay for these data
services.

While this last point may seem obvious and reports such as those detailed above
suggest carriers have been able to garner significant game revenues, it remains to be
seen whether Reliance is capable of selling mobile games to its subscribers. While SMS
has proven profitable for Reliance, at the time of this writing, they have failed to move away from simply giving their games away (The Hindu Business Line Bureau, 2004).

From RE's standpoint, not only must they be careful to choose a carrier able to demonstrate a capacity to generate revenues from games, but they must also carefully consider the wisdom of moving into the cellphone space at all. Given the current proliferation of handset technologies, with display technology in India still predominantly monochrome, this is an industry that presents little opportunity for RE to demonstrate its traditional competitive advantage derived from its sophisticated game design and programming strength.

Given that monochrome handsets command 70 percent of all handsets in India as of February of 2004, it is clear that the market for rich media game content has yet to reach critical mass (Still using a B/W handset? Yawn!, 2004). At the moment, RE's critical success factors derived from rich media content will not apply in this space. While the long term prospects are encouraging in terms of the increasing subscriber numbers and the likely proliferation of handsets of increasing sophistication, in the intervening time, market development and product design strategy must not rest on a product differentiation strategy based on technology sophistication alone.

Until subscribers prove they are (1) willing to pay for their games and (2) begin purchasing handsets capable of utilizing RE's game development capability, RE should be necessarily cautious when assessing revenue potential. A long-range strategy should underlie the business development rationale with respect to provisioning the Indian VAS market. This long-range strategy is likely to include, for instance, a willingness to incur initial loss until such time as the market matures, game sophistication increases and a higher willingness to pay is demonstrated.
THE INDIAN TELECOMMUNICATION MARKET: CONCLUSION

To be sure, discussions and negotiations with prospective carriers are needed to form a better basis for weighing this prospective diversification prospect. Through direct negotiations with a prospective carrier, clarification pertaining to these questions concerning market share, market access and the strategic role of VAS can be more thoroughly ascertained.

Suffice it to say at the conclusion of this section that a prospective opportunity exists and discussions with Indian carriers such as Reliance should proceed in earnest.

It is clear that the Indian VAS market is growing and all reports suggest the mobile gaming sector will become increasingly significant. According to the estimates detailed previously, the market is forecast to be worth $336 Million by 2008. In addition to the projected revenue growth, perhaps, of greater relevance for an organization such as RE is the possible opportunity it represents to establish an Asian market presence. An international presence, of this nature, would afford an opportunity to develop international logistical competencies, forge a networked market presence and better position a firm like RE to leverage the opportunities found in South East Asia at large (whether it be in the cellphone market or other parallel gaming sectors).

In short, the Indian cellphone game sector, while projected to generate significant revenues, looks less promising in the short term. Ultimately, this sector is likely to represent a more compelling tactical opportunity than a short-term revenue source. These tactical and strategic implications are explored in subsequent sections pertaining to strategic choice and market development tactics.
Given the current market conditions, market development should proceed only in the event that RE possess a high tolerance for uncertainty and willingness to incur moderate short term losses with the expectation that, in future, revenues will be far more significant and alternate Asian market opportunities more feasible.
SECTION 3:

STRATEGIC DIRECTION AND SCOPE
Asian Market Development and the Indian Cellular Opportunity (Strategic Choice)

7.1 Summary

Given the rapid growth of the cellular industry and the carrier's apparent need to increase revenues from VAS, as previously detailed, the cellular market in India represents a compelling target market and a reconfiguration of RE's competencies toward cellular game design looks like a sound pursuit.

RE must carefully consider, however, all of its options as it assesses possible diversification avenues. These considerations should include a sober evaluation of the implications pertaining to:

- Development of a cellular game competency vs. MMO⁶ capabilities
- Size and scope of its diversified marketing effort
- Ability to develop appealing Indian content
- Feasibility of creating a differentiated product mix
- Presence of barriers to entry
- Telecommunication Carrier joint venture selection and assessment
- Access to complimentary mainstream markets

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⁶ MMO stands for Massively Multiplayer Online games. These are the Internet-based class of games that earn revenues by maintaining a community of paying subscribers that play in a perpetually evolving virtual world. Also referred to as massively multiplayer online role-playing games, or "MMORPG".
What follows is an analysis of RE’s strategic choices and a suggested tactical approach to developing the Indian cellular market derived through the exploration of some of these broader questions pertaining to market feasibility.

7.2 Build Capabilities (Strategic Choice)

Given that RE currently has no capacity to produce cellular games, the feasibility of developing this competence should be properly assessed. Clearly the absence of this capability at present greatly increases the necessary cost and risk associated with this proposed market development initiative. Potential revenues should be assessed against the implied upfront investment costs.

Choice Assessment Criteria:

- Cost of training/hiring
- Productivity opportunity cost
- Cost of development tools
- Cost of acquiring external facility
- Cost/risks of establishing joint venture terms with established mobile game co.

In discussions with RE it has been ascertained that development of a complete cellular game is estimated to require a budget of approximately $90k - $140k US. RE must be careful to assess these costs against estimated revenues. Once discussions start with a carrier Reliance (for instance), a better basis for assessing these costs may become apparent. In the absence of such discussions, however, RE is advised to take a very cautious approach in the intervening time. Working with an existing cellular game company or exploring cellular game development, as part of a generalized R&D exercise is advisable in this event. In the absence of any market-securing agreement with a
carrier, such an approach would allow the organization a means of reducing its financial risk, while guarding against loss of productivity through distraction from its core business, and mitigating the otherwise huge expense of acquiring an existing cellular development firm. With a cellphone game competency established or partially operationalized, RE would be better positioned to seek and negotiate a carrier-provisioning contract.

Should the creation of a cellular game competency be deemed unattractive in terms of its cost benefit, alternatives to cellular games that provide similar access to the Indian market might be explored. These alternatives could include developing applications for the larger VAS market segment (i.e., SMS and business applications). Such an approach might increase the potential revenues and thereby improve the implied cost benefit. On the other hand, this strategy would still represent a step away from RE's core competencies.

Conversely, developing an Indian MMO product is a better alternative in the estimation of this researcher given that this approach to market development would better utilize RE's design and programming core competencies. If the MMO market in China is any indication, the Indian MMO opportunity is potentially huge. Furthermore, such a product might well appeal to a telecommunication carrier such as Reliance with their extensive network of Internet cafes. While the details of this concept would necessarily fall into the domain of RE's designers, a game concept that incorporated both cellphone and Internet/PC-based multiplayer features would appear to present a unique market niche for both these organizations. Still, given the absence of a discernable Indian MMO market at the present time, RE is strongly advised to proceed only on the basis of a carrier licensing agreement. The model for such an agreement
might closely resemble the publisher agreements which currently reflect RE's core business model.

**Recommendation:** Develop cellular game tools and libraries as part of ongoing R&D efforts. Develop a functioning demo. Use this exercise to assess the internal production capabilities and better gauge the estimated budget, and production timelines. With possession of cellular game assets such as these, relationship exploration in this new market becomes far more effective. Explore carrier interest level with respect to developing MMO product offerings in addition to, or as an alternative to provisioning cellular games. This latter point would also include the hybrid game concept that incorporates both cellphone and Internet/PC-based game features as previously discussed.

### 7.3 Market Scope (Strategic Choice)

Given the relatively small size of the Indian cellular game market, in comparison to a pan-Asian or Global market, the questions pertaining to the logic of developing for such a narrow target naturally arise. Developing for the Indian market in addition to a simultaneous global market development effort might also be entertained. The contention of this researcher, however, is that considering the commonly held views on effective market development practices and in the event that a favourable carrier agreement is forthcoming, a single focussed market development exercise should be undertaken with India as the primary target. This is a rapidly emerging sector with a strong future growth and a relatively open competitive landscape. Indications suggest a concerted market development initiative with effective competitive differentiation will *eventually* result in respectable revenues.
To put this in more concrete terms, by taking the mobile game revenues detailed in Section One, estimated to be worth $336 Million in 2008, and given that Reliance currently possesses 20 percent of the total cellular subscriber market (see Appendix IV), one might determine the market potential, garnered by way of a provisioning agreement with Reliance, could represent 20 percent of the $336 Million ($67M). Of course, the number of games that account for these figures would be required to properly assess the cost benefit of developing for a 2008 Indian market, but suffice it to say, even a rough estimate suggests that a market development scope that targets a single Indian telecommunication carrier is potentially very lucrative.

Still, there are strong reasons why a broader market development might be attractive, especially when considering the fact that the Indian mobile game market is still very small, sophisticated handset proliferation relatively slow, and given the unprecedented post 1991 economic development, the future growth, despite optimistic projections still relatively uncertain. Moreover, at present, estimates only peg the market to be worth $26 Million, according to Instat (See above). Relative to the console market, this is a relatively minute market from the perspective of RE’s stakeholders.

Other challenges that work against India as the chosen target include the relatively low proliferation of sophisticated handsets, the cultural challenges that are sure to arise as a North American developer producing content for a foreign culture, the logistical challenges associated with producing for a distant and developing country, and questions pertaining to India’s political stability7.

Despite these challenges, there remain the valuable prospective Indian relationships that RE is already cultivating and despite the ambiguity of the market

7 As a result of the recent victory of the Congress party, for instance, saw severe devaluation of the Indian stock market amid fears that the ruling party’s coalition with the communist party would precipitate a rollback of reforms made in the post-1991 period. (BBC, 17 May, 2004)
growth potential, there is general consensus that the Indian wireless gaming market will
grow significantly. Moreover, the same cultural and logistical challenges would exist in
many alternative markets, amplified, in fact, as the market development scope
increases.

An alternate view of these challenges associated with an Indian target market
would suggest that these obstacles represent the barriers to entry that have dissuaded
existing non-Indian game providers thus far and, to RE’s benefit, perhaps, into the
future.

From the point of view of generally held views on marketing theory, there is
strong evidence that indicates that focussing on a single market development initiative
facilitates a more effective basis for success than for instance a broader pan Asian
initiative. According to Geoffrey Moore’s Chasm Theory (Moore, 1991), for instance, by
initially concentrating resources on a single target market, a more focussed effort is
achieved, greater market share captured, and therefore a better basis for success. An
emphasis on a single market ensures the product accurately fulfils the needs of a clearly
defined customer base and provides for a more tightly interconnected self-referencing
target market to build brand traction and word of mouth advertising.

Recommendation: Concentrate on a small regional market where the prospect
for product differentiation and competitive advantage is attainable, and where the
likelihood of capturing significant market share and demonstrating a competitive position
is reasonably assured. The Indian market is one such target market made more tangible
recently as a result of the developing relationships previously mentioned.
7.3.1 Is Indian Competitive Advantage Achievable?

The logic of an Indian market development initiative rests on the developing relationship previously discussed. However, due diligence, with respect to RE’s ability to establish competitive advantage should be conducted. This topic will be briefly explored here.

Significant barriers to entry exist in the cellular VAS provisioning space in India, especially for a North American based firm. These barriers would include the logistical and communication challenges of doing business on an international basis. The cultural specificity of the Indian market also presents clear and significant barriers to North American, or Non-Indian firms. RE, however, appears to possess the necessary resources to overcome these barriers. First, the prospective IP made available, by way of Intent, would likely help overcome obstacles pertaining to cultural specificity (at least initially). Secondly, logistical complexity, while presenting a challenge, is not thought to represent an obstacle that RE could not overcome and the same would hold true for other North American firms.

The most significant threat of new entrants is likely most strong from local Indian companies. The complexity of developing a cellular game is significantly less pronounced than it is for console game production, and given the presence of a significant pool of Indian talent in the area of computer programming, a local Indian development firm would be able to overcome the kind of production complexity barriers that protect RE in the console market. In fact, Indian firms are generally better positioned to develop this market as they do not face the same logistical and cultural barriers to entry that confront a Western organization. Still, programming talent in the area of video game production remains a challenge for Indian firms too, despite the
news reports to the contrary, and efforts to overcome the scarcity are ongoing (Sukant, 2004).

What RE possesses in terms of competitive advantage, relative to an Indian firm, derives from its significant experience in highly sophisticated console game design and development. An expertise that is extremely scarce in India at this present time. As infrastructure and handset technology improve and the demand for sophisticated game design increases, this will increasingly play to RE’s advantage with respect to its critical success factors in the area of advanced game design.

The carriers themselves likely present the most significant barrier to entry by regulating the provisioning of VAS for their respective subscribers. When determining the nature of barriers to entry in this market, an account of the provisioning policies of each prospective carrier and the level of market access protection made available to a potential provisioning supplier like RE should be conducted as part of the provisioning negotiation process.

Recommendation: Assessment of prospective provisioning agreements should include the degree of protection from ‘new entrants’ provided to VAS suppliers with preference given to those carriers that furnish a degree of market access assurance. With respect to competitive advantage, content capable of appealing to an Indian audience should be stressed over programming or design competencies, at least over the medium term, or until handset technology proliferation can support and demonstrate differentiation on the basis of superior development expertise. Secondly, because of the clear advantage that Indian firms possess with respect to geographic proximity, and the cultural advantage it possesses in terms of generating and maximizing local Indian IP, an Indian-based operation should be carefully considered. The advantage of possessing an Indian asset would greatly enhance RE’s competitive position. On this
second point, while beyond the scope of this analysis, the benefits of labour arbitrage may also have potentially significant cost saving advantages and should be part of a more exhaustive cost/benefit analysis.

7.4 Carrier Selection (Strategic Choice)

If India is the chosen target market, which carrier is the most suitable carrier partner? Clearly Reliance presents the most likely partnership opportunity. However, if the Indian market is the ultimate objective, due diligence should be conducted to ensure that, in fact, a Reliance/RE partnership presents the most opportune set of synergies.

This topic is explored in greater detail in Appendix IV with a review of the relative merits presented by each of India's six major carriers. Choosing the best carrier may, in fact, come down to choosing the carrier that offers the best financial terms. However, there are some other, possibly equally important, variables that should be factored in to the carrier selection process, including:

- Access to international cellular markets
- A paid download revenue model
- Access to Indian IP
- Wireline assets such as an Internet Café chain
- Event hosting
- In-house development
- Degree of protection from new entrants and market access guarantees
- Bundling terms
A carrier’s capacity to provide RE with access to an international market would present a strong incentive. Parallel market opportunities, such as a prospective MMO market by way of a chain of Internet cafes, would also present a compelling incentive and a factor to be considered in addition to the simple financial aspects of a potential provisioning agreement. The access policies and new entrant protection should also be considered, as should any sort of bundling agreement or sales guarantee.

The relative bargaining position of each carrier might also be a factor in choosing the most appealing prospective partner with those carriers without an in-house development group, or proven ability to secure appealing IP, likely to present terms most favourable to RE. On the flip side, a carrier with a healthy game division, while perhaps ready to drive a harder bargain, might appeal to RE on the basis that such a demonstrated commitment to developing a game revenue model would likely translate into a strong gaming subscription base for RE with greater potential revenues. Also, a carrier’s commitment to game promotion, for example by way of an effective online game portal, and/or game event hosting practices, would also provide a degree of promotion benefit to RE and present a synergy to be factored into a carrier selection process.

**Recommendation:** It is recommended that RE explore a prospective provisioning agreement with Reliance as it has been urged to do through informal discussions with the Intent group. Given that Reliance holds significant market share and shows every indication that it will continue to grow its subscriber base at an impressive rate (Answering India’s call., 2004), they make for a very strong partnership choice. Based on the analysis detailed in Appendix IV, Hutchinson actually presents a better collection of potential synergies compared to Reliance, due to its global market

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* A bundling agreement here refers to a circumstance in which RE games would come pre-loaded with each carrier subsidized cellular phone sale.
presence and proven revenue-generating gaming model. It is recommended, therefore, that Hutchison also be approached, so as to assess the benefits of a prospective provisioning partnership with them. Finally, it is recommended that any prospective agreement account for the entire picture. All factors concerning the relative value of a provisioning agreement should be considered in addition to the financial terms, including a carrier's commitment to developing a gaming subscription base, its ability to develop Indian IP and its level of market access guarantee either through a bundling arrangement or new entrant protection.
8 STRATEGY EXECUTION (METHOD)

8.1 Chasm Theory

Given RE’s corporate and business aspirations with its pronounced interest in the Asian market, a proposed market development strategy shall be presented in what follows. While some in the RE organization have expressed interest in a much broader pan-Asian development exercise, it shall be emphasized here that by focussing the market development scope on a narrow target, such as the Indian cellular game market, the organization can effectively establish a foothold in South East Asia. As a consequence, it shall be better positioned to successfully exploit an increase in scope, perhaps broad enough to encompass a pan-Asian market initiative at a later date. Geoffrey Moore’s theories on market development serve as the backdrop for the following market development discussion.

The advantage derived from an established relationship in India, such as a provisioning agreement with Reliance is likely most significant as a tactical first step with respect to fulfilling any of RE’s larger Asian market aspirations. The merits of the strategy, therefore, should be assessed with these larger market opportunities in mind, rather than a simple assessment of return on investment with respect to mobile phone development and distribution. The value of an established Indian-presence, however small at first, translates into opportunities to begin branding proliferation and eases the access to secondary mainstream markets.

To qualify this rationale, the following extract serves to articulate the strategic approach to market development. The analogy used is the Normandy invasion which in
light of RE's larger South East Asian aspiration makes an excellent parallel and
underscores the wisdom of a measured and focussed market development approach:

Our long-term goal is to enter the mainstream market (Occupied Europe) that is currently dominated by an entrenched competitor (the Axis). For our product to wrest the mainstream market from this competitor, we must assemble an invasion force comprising other products and companies (the Allies). By way of entry into this market, our immediate goal is to transition from an early market base (England) to a strategic target market segment in the mainstream (the beaches at Normandy). Separating us from our goal is the chasm (The English Channel). We are going to cross that chasm as fast as we can with an invasion force focussed directly and exclusively on the point of attack (DDay). Once we force the competitors out of the target market niche markets (secure the beachhead), then we will move out to take over additional market segments (districts of France) on the way toward overall market domination (the liberation of Europe). (Crossing the Chasm, 1991)

The following grid illustrates the application of this theoretical approach to the rationale that should underlie RE's strategic approach to establishing a pan-Asian Interactive Entertainment enterprise
Figure 8.1: Crossing the Chasm DDay Framework

<table>
<thead>
<tr>
<th>Market Development Objective</th>
<th>WWII Analogy</th>
<th>Radical Entertainment Analogy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the mainstream</td>
<td>Occupied Europe</td>
<td>SE. Asian entertainment sector</td>
</tr>
<tr>
<td>market</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrenched Competitor</td>
<td>The Axis</td>
<td>Content developers w/Asian presence</td>
</tr>
<tr>
<td>Assemble an invasion force</td>
<td>The Allies</td>
<td>An Indian telecommunications carrier, IP with Indian appeal,</td>
</tr>
<tr>
<td>comprising other products</td>
<td></td>
<td>cellphone games</td>
</tr>
<tr>
<td>and companies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transition from an early</td>
<td>England</td>
<td>Console Industry in North America</td>
</tr>
<tr>
<td>market base</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify target market</td>
<td>Beaches of Normandy</td>
<td>Provisioning cellphone games for an Indian telecommunications</td>
</tr>
<tr>
<td>segment in mainstream</td>
<td></td>
<td>carrier</td>
</tr>
<tr>
<td>The Chasm</td>
<td>The English Channel</td>
<td>Cultural, and logistical challenges and short-term sustainability.</td>
</tr>
<tr>
<td>Identify Point of Attack</td>
<td>DDay</td>
<td>T.B.A.</td>
</tr>
<tr>
<td>Force competitors of</td>
<td>Secure the</td>
<td>Create barriers to entry byway of favorable carrier agreement</td>
</tr>
<tr>
<td>target market niche</td>
<td>Beachhead</td>
<td>and protect them byway of superior business process, IP and</td>
</tr>
<tr>
<td>Move out to take over</td>
<td>Districts of</td>
<td>Recognizable brand</td>
</tr>
<tr>
<td>additional peripheral</td>
<td>France</td>
<td></td>
</tr>
<tr>
<td>markets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Columns one and two derived from Geoffrey Moore’s Chasm Theory (Crossing the Chasm, 1991)
The framework demonstrates that effective market development ensures that taking too ambitious an initial attack does not jeopardize those larger objectives and aspirations. The Asian market represents a huge leap for RE and should be pursued, as recommended, by way of a very measured development exercise beginning with provisioning games for the Indian VAS. The framework also underscores the problem of taking too myopic a view on the cost benefit of developing cellphone games. The opportunity to develop an Asian presence, for example, has potentially much larger tactical implications.

8.2 Primary Strategy Outline (Crossing the Chasm)

The following section is a further exploration of Geoffrey Moore’s theory of market development. What follows is a suggested market development methodology using the ‘crossing the chasm’ concept as the theoretical basis guiding market development execution.

**Step 1:** Provide a telecommunication carrier, such as Reliance, with game content. In the opinion of this researcher, the over-riding strategic imperative for Reliance and their mobile game capacities is to secure game content compelling enough to enable them to transition from supplying free games to a paid game revenue model. The IP supplied by the Intent group may represent the kind of critical success factor needed to provision billable games.

This will place RE in a position to (1) start propagating its brand, (2) build its relationship with the partnered carrier and the Intent group (3) establish a potentially massive advertising conduit to broadcast Intent media productions of any variety (4) solve logistical obstacles, (5) build an Indian talent pool, (6) put RE in a position to
exploit the cellphone gaming market which will come of age in 3 years, (7) and most importantly establish a bridgehead for a larger Asian market development undertaking.

**Step 2:** Diversify product offering by developing MMO capability. Move into producing content for online gaming for Reliance’s 1700 Internet cafes. Extend the solution by providing a convergent cellphone land-based gaming ecosystem by implementing the cellphone/Internet PC-based game concept proposed above.

This will further solidify RE’s relationship with Reliance and provide the means to develop its online gaming competencies which will form the basis for a much larger Asian expansion with or without Reliance.

**Step 3:** Position Reliance and RE within a joint gaming brand with a marketable cellphone gaming download portal and online multiplayer gaming environment.

**Step 4:** Repeat the model for market development in China and beyond.
9 DISCUSSION AND CONCLUSION

As the pending next generation console market is set to wreak havoc on RE's strategic position, management is wise to sponsor this due diligence with respect to diversification into cellular game development and this potential market opportunity in India.

In accordance with widely held views pertaining to business strategy, and given the expected turbulence caused by the introduction of the next generation console, RE is well advised to reassess its internal configuration so as to most effectively choose the ideal market direction and scope. This market scope potentially includes diversification of RE's product line and a strategic direction into Asia.

This analysis has recommended that RE assess the Indian VAS market opportunity not on the basis of current market revenues, but with a longer range market development strategy in mind, developing the prospective market only in the event that RE possess a tolerance for uncertainty and willingness to incur moderate short term-losses. It has been advised that the organization begin to configure its resources so as to exploit the tangible opportunity that provisioning games for the Indian telecommunication VAS market presents; opportunities that include the developing relationships with Reliance and Intent and the tactical advantage of being better positioned to forge a larger Asian market presence.

In the final analysis, telecommunication organizations the world over are facing increasing competitive pressures that require them to promote and invest in Value Added Services of all varieties, including cellphone games. This is a growing sector.
The wireless industry presents a huge value proposition. RE would be well advised to consider developing this market by nurturing a broad network of relationships within this sector, while being careful to resist the temptation to attempt too broad a marketing effort too quickly and, ergo, dilute its market development effectiveness. This researcher strongly recommends RE focus on a defined single market, where it can hope to dominate over all others and grow its market from a firmly established beachhead. Provisioning the Indian VAS markets presents such a tactical target that may well afford for much larger conquests.
10 RECOMMENDATIONS SUMMARY

1) Assess the Indian VAS market opportunity not on the basis of current market revenues, but with a longer range market development strategy in mind, developing in the event that RE possess a tolerance for uncertainty and willingness to incur moderate short terms losses.

2) Develop cellular game tools and libraries as part of an ongoing R&D effort. Develop a functioning demo. Use this exercise to assess the internal production capabilities and better gauge the estimated budget, and production timelines. With possession of cellular game assets such as these, relationship exploration in this new market becomes far more effective.

3) Any concerted market development should be predicated on a forthcoming agreement with an established Indian carrier that provides for a significant degree of protection from the threat of new entrants.

4) Explore a prospective provisioning agreement with Reliance, a Telecommunication carrier doing business in India.

5) Explore a prospective provisioning agreement with Hutchison, a carrier also doing business in India and beyond.

6) Explore carrier interest level with respect to developing MMO product offerings.

7) Concentrate on a small regional market where the prospect for product differentiation and competitive advantage is attainable, where the likelihood of capturing significant market share and demonstrating a leadership
competitive position is reasonably assured. The Indian market is one such target market.

8) An Indian-based development operation should be carefully considered. The advantage of possessing an Indian asset would greatly enhance RE's competitive position in the Indian VAS space.
APPENDIX 1: WORLD WIRELESS MARKET

While the Price Water House Cooper study includes all wireless gaming devices, not limited to cellphone games, based on the research conducted for this project, a non-cellphone wireless game market in India appears to be imperceptible. Therefore, when accounting for all possible wireless devices, India shall represent only a relatively small percentage of the overall wireless gaming revenue potential.

Global Gaming Revenues in 2003: $733 Million
Global Gaming Revenues in 2004: $1.88 Billion

World Wireless Figures

<table>
<thead>
<tr>
<th>Wirelss Gaming Annual Spending (millions of US dollars)</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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<td>USA</td>
<td>142</td>
<td>301</td>
<td>1,202</td>
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<td>2,232</td>
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<td>Canada</td>
<td>16</td>
<td>39</td>
<td>98</td>
<td>153</td>
<td>198</td>
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<tr>
<td>EMEA*</td>
<td>208</td>
<td>408</td>
<td>996</td>
<td>1,935</td>
<td>2,835</td>
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<td>Asia (Including India)**</td>
<td>367</td>
<td>845</td>
<td>2,295</td>
<td>3,605</td>
<td>4,800</td>
<td>6,600</td>
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<tr>
<td>India**</td>
<td>26</td>
<td>104</td>
<td>181</td>
<td>259</td>
<td>336</td>
<td>414</td>
</tr>
</tbody>
</table>

(Sources: Price Waterhouse Cooper;, 2004 INSTAT, 2004)
APPENDIX 2: INDIAN TELECOMMUNICATION ORGANIZATIONAL FIELD

Figure All.1: Organizational Field Framework

A) Overview
The following appendix is compiled in an effort to provide the reader with a more comprehensive picture of the Indian VAS market and how a prospective cellular game supplier fits into the larger organizational environment.
B) **Handset Manufactures** produce the cellphone (handset). The handsets represent both the enabling hardware and endpoint to the distribution channel. The factors that handsets bring to the value chain include the methods of application delivery, and the form that the application will take (ie. Depth of graphical complexity).

*Organizations*: Nokia, Samsung, Motorola, Ericsson

C) **Infrastructure Manufacturers** provide the actual cellular transmission infrastructure, GSM and CDMA infrastructure types with a defined spectrum of bandwidth. Bandwidth influences game delivery and, in instances of game interconnectivity, game functionality.

*Organizations*: Lucent, Nortel, JVS, Motorola, Ericsson, Nokia

D) **Telecommunication Operators** oversee the business of cellular service maintenance and delivery, providing the basis for administering the subscription economy. Telecommunication Operators or carriers represent the fulcrum of the value chain and are the key purveyors of power and influence.

*Organizations*: Reliance, Hutchison, BSN, Bharti

E) **Retail Outlets** include the shops and ‘brick and mortar’ establishments where cellphone and carrier subscription plans are initially purchased.

*Organizations*: Wholly owned and partly owned carrier subsidiaries and privately owned outlets

F) **Game Portals** Internet resident sites where data applications are made available. Many portals are integrated into a telecoms or handset manufacturer's
Website and may, or may not, include a conduit for game download directly onto a handset, either by way of an interconnecting device with a PC technology and cellphone, or through a direct WAP enabled cellular interchange.

*Organizations:* R-World, Airtelworld.

**G) Value Added Service Providers (VAS)** provide the carrier consumer data applications ranging from simple messenger services (SMS), to business related inventory and banking applications and, by broad definition, games.

*Organizations:* IMIMobile

**H) Game Developers** are specialized Value Added Service providers often working as an in-house subsidiary of a carrier organization, or else, as an independent game developer supplying games to the carrier, by way of a joint venture, licensing or royalty agreement.

*Organizations:* Indiagames, Paradox Inc.
APPENDIX 3: TELECOMMUNICATION CARRIER JOINT VENTURE PARTNERSHIP SELECTION

A) Overview

Based on interviews with RE, the Indian cellular market has come to represent a focal point of interest and is presently being considered within a broader diversification planning process that includes a pronounced interest in the emerging markets of South East Asia at large. Given RE's IP assets, made available through Intent, combined with the informal relationships between Intent and with Reliance, the Indian VAS market presents a compelling target market. While Reliance is clearly most pronounced as a potential game provisioning client/partner, due diligence in assessing these other carriers is conducted in the next section.

In what follows, the six prominent Indian carriers will be assessed on the basis of the following characteristics:

- Market share
- Infrastructure Capabilities
- Relative strengths, weaknesses, opportunities and threats
- Game distribution capacities
- IP asset acquisition capability
- International capacities or access to complimentary mainstream markets
Each of the thirteen carriers in India present RE a potential gateway into the Indian cellular game market. Of these thirteen, only six hold significant market share with GSM operators, Bharti holding the market lead and, CDMA operator, Reliance a close second overall.

Carrier Market Share

<table>
<thead>
<tr>
<th>Carrier Market Share May 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Bharti (25%)</td>
</tr>
<tr>
<td>▪ Reliance (22%)</td>
</tr>
<tr>
<td>□ Hutch (19.85%)</td>
</tr>
<tr>
<td>□ BSNL (.19.73%)</td>
</tr>
<tr>
<td>Idea Cellular (10.37%)</td>
</tr>
<tr>
<td>Tata (5%)</td>
</tr>
</tbody>
</table>

Userbase: 28million

B) Infrastructure Technology and Corresponding Application Capability

Cellular Carrier Data Specifications
Increasing bandwidth does not necessarily translate into a game revenue model. While Reliance leads the bandwidth race, it is not realizing added game revenues. However, there is the logic, detailed previously, that suggests Reliance will likely be attracting a more sophisticated user. As such, RE may be better positioned to exploit the increased bandwidth application potential and ultimately justify the transition to a paid gaming model.

For RE, a relationship with Reliance might, therefore, translate into a captured audience better enabled to exploit the kind of game quality that has distinguished RE in the console market. If, however, game sophistication continues to be a non-critical success factor, then RE loses any such perceived advantage.

Also of note, BSNL has yet to introduce an online game portal, suggesting a disinterest in developing a subscriber base inclined to play mobile games and should not, therefore, be seriously considered as a potential joint venture partner.
## C) Carrier Strength Weakness Opportunity Threat Analysis

### Carrier S.W.O.T Grid

<table>
<thead>
<tr>
<th>Carrier</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hutchison</strong></td>
<td>2.5G cellular network</td>
<td>Costly infrastructure upgrade required for true 3G</td>
</tr>
<tr>
<td></td>
<td>Significant market share</td>
<td>Lack of concerted in-house gaming competencies</td>
</tr>
<tr>
<td></td>
<td>GSM Economies of scale</td>
<td>External power base (Hong Kong)</td>
</tr>
<tr>
<td></td>
<td>Deep pockets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Celebrity brand power(Rahul Dravid)Host of popular events and competitions</td>
<td></td>
</tr>
<tr>
<td><strong>Idea Cellular</strong></td>
<td>2.5G cellular network</td>
<td>Costly infrastructure upgrade required for true 3G</td>
</tr>
<tr>
<td></td>
<td>Strong SMS service</td>
<td>Lack of concerted in-house gaming competencies</td>
</tr>
<tr>
<td></td>
<td>GSM economies of scale</td>
<td>Lack of celebrity endorsement</td>
</tr>
<tr>
<td></td>
<td>Unique music service</td>
<td>No gaming portal</td>
</tr>
<tr>
<td></td>
<td>Strong retail channel</td>
<td></td>
</tr>
<tr>
<td><strong>Bharti</strong></td>
<td>2.5G cellular network</td>
<td>Costly infrastructure upgrade required for true 3G</td>
</tr>
<tr>
<td></td>
<td>Fixed telephone &amp; DSL lines</td>
<td>India only focus</td>
</tr>
<tr>
<td></td>
<td>Significant market share</td>
<td>Lack of free stuff</td>
</tr>
<tr>
<td></td>
<td>Strong IP assets (Bruce Lee)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strong retail channel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Good gaming value chain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Significant game revenue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GSM Economies of scale</td>
<td></td>
</tr>
<tr>
<td><strong>BSNL</strong></td>
<td>2.5G cellular network</td>
<td>Slow-moving bureaucracy</td>
</tr>
<tr>
<td></td>
<td>Fixed telephone &amp; ISDN lines</td>
<td>Lack of free stuff/</td>
</tr>
<tr>
<td></td>
<td>Government backing</td>
<td>India only focus</td>
</tr>
<tr>
<td></td>
<td>Strong retail channel</td>
<td>No gaming capability, poor data services</td>
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<td></td>
<td>Significant market share</td>
<td>Poor press footprint</td>
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<tr>
<td></td>
<td>SMS services</td>
<td>No IP assets</td>
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<td></td>
<td>GSM Economies of scale</td>
<td></td>
</tr>
<tr>
<td><strong>Reliance</strong></td>
<td>2.5G Cellular network limited 3G</td>
<td>Vulnerable to GSM global determinism</td>
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<tr>
<td></td>
<td>Fixed telephone &amp; DSL lines</td>
<td>India only focus</td>
</tr>
<tr>
<td></td>
<td>Significant market share</td>
<td>Failure to create paid gaming model</td>
</tr>
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<td></td>
<td>Strong IP assets</td>
<td>Weak VAS revenue model</td>
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<tr>
<td></td>
<td>Seamless upgrade to 3G EVDO/DV</td>
<td>Poor IP assets</td>
</tr>
<tr>
<td></td>
<td>Strong gaming assets (Paradox Studios)</td>
<td>Spectrum limitations</td>
</tr>
</tbody>
</table>
D) Relative Bargaining Positioning

i) Access to Global Markets

Having a carrier positioned to provide access to much larger world market outside of India would be a favourable carrier characteristic. The carrier with this kind of market access whether it be in wireless telecommunication carrier or optical ISP services would present an attractive value proposition to RE (with its larger global aspiration) and would provide a carrier significant bargaining power.

Carriers of Distinction: Hutchison.

ii) GSM Economies of Scale

The GSM carriers enjoy much larger economies of scale due to the overwhelming preponderance of GSM technology throughout the world. All indications suggest that GSM will continue to be dominant and continue to seize a greater portion of market share in the long term and, as a consequence, would provide an application developer, by proxy, the same market share advantages. From a game developer’s perspective, these scale economies would, theoretically, include middleware, human resource specializing in GSM handset application development, developer kits and handset licenses. Network externalities would also be potentially much larger within the GSM spectrum, with Value Added Services potentially portable to a far greater market than that offered by a CDMA segment. Even with a cross platform development capability, the network effects made possible by way of the GSM market is simply much greater than that of a CDMA market.

Carriers of Distinction: Hutchison, Bharti, Idea, and BSNL
iii) Game Portal and Paid Downloads

Those carriers that have established a retail model around their gaming service and are providing games to their subscribers on a paid basis, present a preferred value proposition to a game developer and therefore a relatively stronger bargaining position. Presumably, those carriers providing free games have access to their stock of game inventory either through licensing agreements, or in-house development. A third party developer producing games under these circumstances will be presented a poor model for success, as there will exist an expectation that games are free and an impression that games produced by this developer brand are not to be valued. The consequences on a developer’s brand are decidedly negative. A carrier that offers a customer-facing game portal and demonstrates a solid revenue model, providing the means for a developer to build a marketable brand, presents a far more convincing value proposition and stronger bargaining position.

Carriers of Distinction: Hutchison, Bharti, and Idea

iv) IP Assets

Those carriers with a proven ability to secure celebrity IP licenses, or other type of valued IP, will have a much stronger bargaining position. A carrier with the means to provide a game developer access to valuable IP, while potentially attractive to a game developer wanting to sell as many games as possible, does tip the balance of bargaining power in the carrier favour. While it is difficult to value the sales potential of IP, suffice it to say that a carrier with IP assets, or a proven competency to secure these assets, will be less swayed by a game developer’s IP proposition and, therefore, in a relatively stronger bargaining position overall.

Carriers of Distinction: Bharti, Hutchison
v) Internet/Wireline Assets
Those carriers that present potential economies of scope in terms of access to a PC platform consumer base present a relatively stronger value proposition and, therefore, a stronger bargaining position. This is especially true for those carriers with an Internet café network. While any cellular game agreement is unlikely to include a PC platform agreement, any carrier that presents a game market access potential would provide the carrier a significant bargaining mechanism.

*Carriers of Distinction:* Idea, Reliance, Bharti, BSNL

vi) Game Event Hosting
Carriers that demonstrate a commitment to marketing their game content through game events or other promotional means, present an attractive aspect to a game developer and, therefore, a significant negotiation variable. The carrier presents a demonstrated promotional capacity and possesses a strengthened bargaining position.

*Carriers of Distinction:* Hutchison

vii) Upgrade Feasibility
The carriers in India are competing on many levels. Voice service tends to be a price waged rivalry, while value added data services are tied to network capacity and application sophistication. Those carriers with greater network capacity in terms of total bandwidth will consequently have a potentially superior roster of games selling at a differentiated premium. Those GSM carriers currently running an EDGE based system will, in addition to spectrum licensing costs, face a relatively expensive overhaul of their network in order to reach the 3G bandwidth threshold known as UMTS or WCDMA. Conversely, CDMA carriers only require a relatively inexpensive software upgrade to achieve the EVDO 3G bandwidth (Wrolstad, 2003). A carrier that can present a game developer, seeking to develop a more sophisticated product, will be attracted to those
carrier organizations with a 3G capacity and consequently provide the carrier a relatively stronger bargaining position.

**Carriers of Distinction:** Reliance, Tata

viii) In-house Development

Those carriers with in-house development capabilities will dilute a third party developer's value proposition. Unless the third party game developer can present a better model for success than that of the in-house development group, the carrier will be in a relatively stronger bargaining position. The third party developer can dilute such a bargaining position by presenting a better model for retail success than that offered by an in-house developer, for example, by presenting demonstrated product superiority, superior IP assets, broader market access, and cheaper bottom line costs as a result of business process efficiencies or economies of scale. The ability to increase game product output and the means to horizontally integrate and, thereby, mitigate risk will also be compelling to such a carrier, effectively further countering the in-house development negotiation variable. Finally, the fact that third party game development is sought, implies the in-house development is insufficient to meet all requirements and as a consequence nullifies any negotiation ploy built on this basis.

**Carriers of Distinction:** Reliance (Paradox)

**Negotiation Grid**

<table>
<thead>
<tr>
<th>NEGOTIATION GRID</th>
<th>Global</th>
<th>Economies of scale</th>
<th>Paid Downloads</th>
<th>IP Assets</th>
<th>Wireline Assets</th>
<th>Event Hosting</th>
<th>Upgrade Feasibility</th>
<th>In-house Development</th>
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</thead>
<tbody>
<tr>
<td>Hutch</td>
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<td></td>
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<tr>
<td>Idea</td>
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<td></td>
</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Reliance</td>
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</tr>
</tbody>
</table>

* Market share is not include as all of these carriers have significant market share and leadership potential.
E) Carrier Selection Conclusion

In the final analysis, Hutchison possesses more advantages in terms of what it brings to the table from the point of view of an organization with RE's particular strategic position. These advantages are especially pronounced with respect to access to the Chinese market. Hutch also has a demonstrated paid gaming portal already finding success in India.

On the other hand, the established informal relationship connecting Reliance to RE makes this carrier a more accessible partner, at least at this juncture. Furthermore, Reliance’s superior bandwidth threshold suggests that its subscribers are better equipped to handle a higher quality game that readily consumes a high quality RE product, especially once handset technology begins to catch up to the expanded bandwidth capacities it has introduced.

Still Hutch, with its introduction of streaming video, effectively responds to Reliance’s higher bandwidth threshold and its struggle to claim market differentiation as the data service leader. Should Reliance implement a streaming video service and attract quality game development, it may reclaim the data leadership position. But, until it is able to introduce a paid gaming model, this would seem doubtful as the ability to attract high quality, brand-conscious application developers will be significantly compromised.

In conclusion, this researcher perceives a prospective provisioning relationship with Hutchison as the most favourable for an organization with RE’s strategic position, with Reliance taking second spot.
BIBLIOGRAPHY


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