Builk Case Study

1. Introduction

Patai Padungtin was deep in thought as he settled into his seat on the flight from Jakarta to Bangkok. He had spent a week meeting up with potential Indonesian partners for his firm Builk. Several choices lay in front of him as he considered how to grow his fast-growing online business servicing the construction sector. Patai marveled that he was even in a position to make these choices, after the twists and unpredicted turns he had taken over the past decade.

2. From civil engineer to software entrepreneur

Patai graduated with a degree in Civil Engineering from Chulalongkorn University in 1999, during the Asian Economic Crisis. It was an unfortunate time to graduate: half-constructed sky-scrapers stood empty throughout Bangkok. The "Asian Economic Miracle" that drove Thailand's economy at 9% p.a. for over a decade had turned out to be a mirage, with over-investment and over-construction obscuring the fundamental inefficiencies of the economy. Many of Patai's civil engineering classmates and seniors were either laid off of left the field as major new project construction ground to a near halt. The Thai GDP shrunk by 10.5% in 1998, bank loans was hard to find, and there was no telling when the economy would recover.

Nevertheless, Patai wanted to work in construction. He joined some classmates and friends in a small construction contracting firm working in residential and small commercial buildings, and learned about the industry from the bottom up.

Construction had historically been a major driver of the Thai economy. Prior to the Crisis, the construction sector contributed over 6% of Thailand's GDP, and accounted for the employment of over 4 million people. But in the decade after the Crisis, the share of construction in the economy declined to around 3%, and by 2010 it employed just 2.5 million people. In the stimulus period after the Crisis, government spending accounted for two-thirds of all construction. This fell to around half by 2004, and remained steady since then.

Small and medium enterprises (SMEs) dominated the construction contracting industry. Over 90% of all contractors had fewer than 20 employees. The 75,000 contractors in the industry relied on low-cost labor, both seasonal migrants from the countryside as well as from neighboring countries. Worker efficiency was low, and so was the quality of management. Investors struggled to find trust-worthy contractors, contractors struggled at marketing their services, project bidding was based more on gut-feel than on rigorous project costing analysis, procurement and cost control were often disorganized, and site management, safety, and environmental compliance were haphazard.

Patai faced these challenges first hand. The weaknesses of the construction industry illustrated to him the fundamental economic weaknesses that caused the Crisis: unprofessional management, lack of systematic methods to improve efficiency, and

over-reliance on cheap government and investor funds. What frustrated him most was the lack of IT tools that could help improve the way construction contracting firms worked.

An online revolution was occurring in the late 1990s and early 2000s, as new software, communications technologies, online websites, and hardware drove major improvements in business efficiency. Yet in the Thai contracting world, Patai still worked with foremen who could barely use a Microsoft Excel spreadsheet and with proprietors who didn't see the value of a website. He also found a dearth of software solutions that were designed around the needs of the Thai construction business. Enterprise resource planning (ERP) systems like SAP could help large firms with complex accounting and long supply chains, but were inadequate for the most pressing needs in contracting.

Patai decided to do something about it. But although he had deep knowledge about the needs of contractors, he knew nothing about developing or selling software to meet those needs. For better or for worse, he didn't let this constrain him. In 2005, the construction company hired a handful of young programmers and tasked them with developing a construction-focused ERP system. Patai dreamed of building a business that wasn't just a player in the contracting industry, but that also fulfilled a deeper corporate social responsibility of making the contracting industry competitive for the 21st century. Within a year, they had a working version of Pojjaman CBS (Construction Business Solution), a software system with construction-focused bidding, accounting, and cost management modules.

Construction and construction software were very different businesses, and the construction company decided to spin off the software business, calling the new business Longkong Studio Co. Ltd. The venture had a registered capital of 1.3 million baht and 7 shareholders.

Their first customer was a mid-sized contractor. The software system sold for a lump sum of 100,000 baht regardless of the number of modules used, and the price of the software later rose, reaching approximately 500,000 baht. Customers paid various other vendors for hardware, general employee IT training, and other implementation requirements separately – the non-software costs could exceed a million baht per company and could take months to implement. Longkong Studio provided the software and held training seminars for customers' employees.

Longkong Studio was successful, and gained over 100 customers by 2008. Longkong's major customers were mid-sized construction contractors who could afford the expense and complexity of implementing the software. As Longkong Studio grew, it increased the functionality of Pojjaman CBS, which also increased the time and cost of implementing the system. Longkong also and increasingly targeted larger contractors who typically had more complex needs and were willing to pay more for the system. Longkong's vision was in sync with the government's policy of promoting ICT utilization among all sectors of the economy, and it took advantage of standard tax breaks, product development tax deductions, financing facilities.

It wasn't always easy to sell the benefits of Pojjaman CBS to potential customers. Large corporations could justify an expensive ERP system like SAP on Return on

Investment (ROI) grounds, based on benchmarks of supply chain efficiency and reductions in inventory. Although Pojjaman CBS helped contractors improve project management and company administration, reduce waste and pollution, and ensured that they complied with government regulations and tax laws, it was difficult to sell on ROI terms.

In addition, the number of mid and large-sized contractors in Thailand numbered in the low thousands – insignificant given the large total number of contractors in Thailand. Also, there were few barriers to entry, and local IT firms like Business Computer Service Center and Smile Solution Service were soon able to adapt their existing accounting and ERP software solutions to the needs of the construction contractor market. Despite providing features that were more specific to the needs of the contractor market, Longkong Studio felt the competitive pressure.

3. The limits of growth

Longkong Studio reported 7.8 million baht in revenue in 2008, 8.4 million baht in 2009, 10.5 million baht in 2010, and 12.3 million baht in 2011. It even earned a profit in 2010 and 2011, causing it to pay taxes for the first time to comply with tax regulations. But despite Longkong Studio's successes and growth, Patai started seeing the limitations of the Pojjaman CBS business model. He had entered the construction contractor ERP market because he wanted to bring the 21st century IT revolution to an industry that was stuck in the 20th century. But Longkong Studio targeted the high-end of the contractor industry, focusing on larger contractors who already had relatively advanced management practices.

But what business model would allow Patai to serve smaller contractors? Patai envisioned a pared down product, without many of the extra features that made implementation of Pojjaman CBS so expensive and time-consuming to implement. He also saw an opportunity to reduce hardware investment requirements by providing services in the "cloud," so that any device with web access could use the service. But most radically, he was inspired by reading Chris Anderson's 2009 book *Free: the Future of a Radical Price* to provide the service for free. A free service could attract a large number of contractor customers, and some would inevitably be willing to pay a fee for premium features and services (like customer support). Called the "freemium" business model, this had been behind the success of many online companies.

Patai was able to convince his partners at Longkong Studio to invest 500,000 baht for six months in developing the new concept, which was named Builk. One controversial point was the relationship between the freemium service and Pojjaman CBS. Some partners anticipated that the freemium service would cannibalize sales of the expensive full-scale ERP system. Patai also did not want to reuse the code base of Pojjaman CBS for development of Builk, and instead preferred to develop the system from the ground up, to provide the simplicity and ease of use that he thought small contractors would need. Eventually, it was decided that Builk would be spun off from Longkong Studio to further ensure that the product was focused around the needs of small contractors. Patai became the Chief Evangelist of the new venture.

A small but capable group of programmers, customer service people, and account executives – mostly from Longkong Studio – rounded out the team. Utilizing human resources from Longkong Studio helped Builk bypass a common challenge for ICT startups in Thailand: the relative difficulty of finding experienced ICT manpower. The team worked closely together for long hours at an office in downtown Bangkok to design a software product whose features and functionality were laser-focused on the needs of small contractors. Working at home – a trendy concept among some companies – was rejected on the grounds that working physically together at the office was the best way to maximize group communications and ensure a well integrated service. They often worked late into the night motivated by a common drive to prove that Builk could carve out a successful market niche. There was no need for overtime, as everybody was either emotionally or financially invested in the venture. Nobody looked forward to being folded back into Longkong Studio.

4. The freemium model

Builk was formed in 2009 as a limited company with 2 million baht in registered capital and 4 shareholders, consisting of Patai and key members of his team. The startup soon faced challenges. The idea of using online IT tools to improve project management was a novel one for many small-scale contractors, and few registered for the service. Of the early adopters that did register, many were frustrated at the lack of free customer support to answer their questions or to suggest to them how they could fully utilize the features of the system. Patai had hoped, based on benchmarks from various other online websites, that around 5% of free users would end up paying for the service. He realized that even if he convinced a few thousand early-adopter contractors to use the system, he couldn't expect more than a few hundred paying customers. Even a 5% conversion rate proved difficult, since some level of customer support was necessary for users to see the full potential of the system and make them willing to convert to paying customers.

The new venture benefited from some government support, including SME-focused tax incentives like reductions in corporate tax rates and beneficial depreciation rates. In addition, the government aimed to expand SME access to funding through agencies like the Thai Credit Guarantee Corporation. Builk was able to operate "on the cloud" because of the greater ubiquity of broadband and mobile internet access, in part due to government policies to deregulate and develop Thailand's communications infrastructure. The nation's 3G penetration expanded greatly from 2010 to 2013, due to the efforts of TOT Corporation and CAT Telecom (both state-owned enterprises) and frequency auctions managed by the National Broadcasting and Telecommunications Commission. 3G technology gave remote worksites faster and more reliable access to Builk's services.

5. The advertising model

After struggling to convert paying customers, Patai decided that the freemium business model just wouldn't be sustainable for small contractors. The freemium model relied on converting a small percentage of a large audience, and with 75,000 contractors in total, the Thai construction industry was just too small. This weakness

caused the freemium model to be wound down, but it also inspired a new business model. Builk had in his hands a small but growing group of users all defined by a common core: the fact that they were small contractors. Could he find a way to monetize this user group through advertising?

Patai envisioned a new business model where the Builk service would be offered completely for free to contractors, while makers of construction materials and providers of construction services would advertise on the site in order to access those contractors. Online advertising was a small but fast growing market in Thailand, but in some developed nations, the online advertising market was larger than the offline advertising market. An advertising-based Builk might be a "ground-floor" opportunity into this growing market. If Patai could also somehow utilize the richly detailed project management and procurement information that contractors were providing him through their use of the Builk ERP system, while also safeguarding user privacy and security, that would make his value to advertisers even greater.

Builk's supply-chain was composed of several interlinked components

- Users, including small contractors, engineering firms, and architect firms. There could be many individual users at each firm. These users were the "eyeballs."
- The core ERP services, provided using various data center software and hardware providers, and accessed by users using computers and mobile devices through various fixed and mobile broadband providers. The "eyeballs" came to Builk to use the ERP services.
- Advertisers for product and services commonly used by small contractors. Sales were either made directly to the advertiser or were made to the advertiser's online media buyer. Advertisers paid for access to the users' "eyeballs."

Builk's first forays into advertising were less than successful. Construction materials companies had large advertising budgets, but they were loath to spend money on online media. Siam Cement Group (SCG), one of the largest construction conglomerates in Thailand, regularly bought multi-page spreads in *Baan Lae Suan* ("Home and Garden," a leading magazine for home owners and contractors), but just couldn't be convinced to pay for online ads. Builk's first major advertiser was a new entrant in the Thai construction materials industry, who had yet to establish deeply ingrained advertising practices: Tata Steel. Other advertisers eventually followed, including SCG.

Competitors in the construction advertising market included print magazines (like *Baan Lae Suan*) and contractor-focused information-providing websites (like Thaicontractor.com and Tumcivil.com). Patai was confident that the application-providing nature of Builk could keep contractors regularly and strongly engaged, and he could increase the number of ads displayed and maintain strong ad rates despite these competitors. He also doubted that accounting firms and IT firms could expand into the small contractor business. Most of these application-providers either focused on larger customers (as Longkong Studio) or attempted to modify cross-industry IT solutions to the needs of specific industries. To develop a service that could strongly compete with Builk, they would have to have a deep knowledge of the needs of small

contractors and then develop *specifically* for that market - and he didn't feel that most potential competitors were willing to do so.

Another new element to the Builk business model was company websites. Most small contractors had few resources to develop and maintain a website. The new Builk offered contractors easy-to-use tools create their own websites, and also provided website hosting services.

It wasn't enough to just sign up contractors – sustained advertising revenue required that users regularly use the website. Poor customer service, bugs, and slow performance were known to be major causes of user attrition from cloud services, and this provided the Builk team with a strong incentive to engage in continuous and fast-response quality control to keep users happy and the system running smoothly. Bugs, particularly bugs that prevented or limited usage of the system, were eliminated as a top priority.

6. New opportunities for growth

The new Builk business model quickly gained users and advertisers. The site launched in early 2010, and by 2011, Builk had over 3,000 registered users from nearly 1,000 contractors and generated 790,000 baht in revenue. By 2012, sales had grown to approximately 4 million baht, and contractors had used Builk on projects worth over 6 billion baht. It had no problem complying with government regulations and didn't have to pay taxes (as an ICT SME startup, it was exempted from taxes for several years). Builk had a very tightly knit team, leading to relatively low employee turnover. It also was able to take advantage of a strong increase in mobile and broadband penetration, which provided a larger number of contractors faster and more reliable access to the website. Builk also benefited from a sustained period of political continuity and policy stability, the first such period since 2005, and didn't have to worry that its tax exempt status, ability to import hardware, or other benefits would be taken away.

Patai evangelized Builk relentlessly by organizing and taking part in seminars and government-organized training sessions throughout the nation, visiting trade shows, and using online and traditional media. Patai viewed his participation in seminars and industry training sessions as part of Builk's core corporate social responsibility (CSR) to improve the IT and management skills of human resources in the contractor industry. This was an approach to CSR and evangelization he had also taken at Longkong Studio.

Patai also entered Builk into several startup competitions. Builk was a winner of the the 2011 Thailand ICT Awards (TICTA), a competition sponsored by the Software Industry Promotion Agency (SIPA), a government agency. SIPA later supported Builk in representing Thailand in the 2011 Asia-Pacific ICT Alliance (APICTA) Awards. Participating in events like these provided Builk with valuable networking, PR, and market expansion opportunities.

Several new growth opportunities and variations in the business model presented themselves. One of them stemmed from property owners and project investors'

difficulty in identifying trust-worthy high-quality contractors. Poor quality control and the lack of professionalism of some contractors made the cost of selecting the wrong contractor very high. Referrals and word of mouth were the traditional ways of selecting a contractor, but Patai pondered whether allowing end-customers to give reviews and ratings to contractors would raise the standard of quality in the industry. Such a model had its risks though, and he wondered how to offer the service.

Patai also pondered how to monetize the detailed purchasing and project management data that his customers were keying in to the system. Leading online companies worldwide were reeling from scandal after scandal for misusing customer data. Such data was theoretically invaluable to advertisers, as it would allow them to specifically target their ads. However, he found that Thai advertisers were skeptical at paying higher rates for highly focused ads. But Patai suspected that as the Thai advertising market developed, advertisers might start clamoring for more information – information that he didn't yet feel fully comfortable with sharing.

7. Indonesia

A third growth opportunity had brought Patai to Indonesia. As part of Patai's ceaseless evangelizing, he presented to a startup competition in Vietnam. Somewhat to his surprise, he won 1st place and was invited to present at Echelon Launchpad 2012, a major startup forum and competition in Singapore. He won 1st place out of over 300 startups in Echelon, and met with many venture capitalists and investors from throughout ASEAN. One of those included an Indonesian who noted similarities between that the Thai and Indonesian construction contracting industries, and suggested that Builk expand in Indonesia.

Patai was very interested in the opportunity, but had his doubts. He didn't know Bahasa Indonesian, and had never worked with Indonesian construction firms. What little information he gleamed off the internet wasn't that useful in telling him much about the needs of small Indonesian construction contractors or advertisers, although the strong growth of the advertising market stoked his interest. Patai was strongly encouraged by the Echelon judge to expand in Indonesia, and he contemplated hiring a handful of smart Indonesians who could help him build Builk Indonesia from the ground up. But the scale of the challenge daunted him.

Last week Patai flew to Jakarta to meet with potential local partners referred by the Echelon judge. One of them was the owner of a major Indonesian construction firm. The firm had offices throughout the country and worked with hundreds of smaller contractors. It boasted that he could quickly promote Builk to a very wide audience in the contracting community. It also had long-standing relationships with construction materials makers, since it was a major buyer, and claimed that it could easily get them to convert their offline advertising to online media.

Patai also met a successful internet entrepreneur. The entrepreneur had founded an online B2B business, and within a few years had grown it to become a major player in the industry. The entrepreneur appeared to have the same drive and passion for growing an internet businesses as Patai. Furthermore, he was experienced in the

world of online advertising. He had little experience in construction, but insisted that he could learn quickly.

8. The present

Patai jerked to attention as his flight touched down in Bangkok. He had spent the last few hours reviewing the unexpected twists and turns that had brought him to this current decision point. He knew that he would face further unexpected twists and turns as he developed Builk going forward. Patai's growth strategy had to take such uncertainties into consideration, while also positioning himself and Builk for growth and adaptation.