****

9B17A001

tantan: love at right swipe[[1]](#endnote-1)

Amanda Chan wrote this case under the supervision of Professor Kersi D. Antia solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

*This publication may not be transmitted, photocopied, digitized or otherwise reproduced in any form or by any means without the permission of the copyright holder. Reproduction of this material is not covered under authorization by any reproduction rights organization. To order copies or request permission to reproduce materials, contact Ivey Publishing, Ivey Business School, Western University, London, Ontario, Canada, N6G 0N1; (t) 519.661.3208; (e)* [*cases@ivey.ca*](mailto:cases@ivey.ca)*;* [*www.iveycases.com*](http://www.iveycases.com)*.*

Copyright © 2017, Richard Ivey School of Business Foundation Version: 2017-09-06

It was July 2016, and another sweltering day in Beijing. For Yu Wang, the founder and chief executive officer (CEO) of Tantan, however, the day was anything but ordinary. Wang had much to be excited about. Since its introduction last September, his nearly one-year-old mobile dating application (app) had attracted more than two million active users and was considered the Chinese equivalent to Tinder, a dating app that had gained widespread use in North America. Tantan (literally translated from Mandarin as “scouting around”) had experienced unprecedented growth and had already achieved the milestone of being the second-most popular mobile dating app in China. Wang now had his sights firmly set on wresting first-place bragging rights from the market leader by the end of the following year. The app had gained such widespread popularity that a reality TV show, entitled *Meeting Your Match*, was under active consideration for the dating service, featuring Mike Sui, a famous Chinese actor who had volunteered to play the main role in the show.[[2]](#endnote-2)

Yet, for all its success (and perhaps because of it), Tantan faced ever-increasing competition from a growing number of competitors—smaller, agile players with creative ideas, and large, acquisition-oriented, multinational companies alike—all of whom were expected to make major inroads in the popular mobile dating market in China. The influx of competitive apps not only caused much concern to Wang and the Tantan senior management team, it also raised several unnerving questions:

1. Given the innate conservative nature of Chinese society, how should Tantan continue to grow its customer base to retain and enhance its presence as a viable mobile dating solution?
2. How could Tantan retain its prime position among the young adults seeking romance in China, when its very success resulted in a significant drop, or worse yet, a cessation in usage?
3. Perhaps most important, how could Tantan make itself less vulnerable to the very disruption it had unleashed on the Chinese dating market?

MEETING YOUR MATCH IN CHINA

Marriage was deeply rooted in Chinese culture and was considered a rigid societal obligation. Traditionally, marriage was considered critical for propagating the family lineage. Almost 70 per cent of the Chinese people who married did so between the ages of 25 and 29.[[3]](#endnote-3) The minimum legal marriageable age in China was 20 years for males and 22 for females. Consistent with worldwide trends, those in rural areas tended to marry at an earlier age than their urban counterparts.[[4]](#endnote-4) Contemporary Chinese society demonstrated a remarkable schism with respect to gender issues, and with the status of women in particular.

On the one hand, Chinese women were expected to be married by the time they approached their mid- to late 20s, thanks to widely held antediluvian mores that they were “most tender, like a steak” at that time.[[5]](#endnote-5) Past that point, the pool of prospects rapidly shrunk, and it became increasingly difficult to find a partner. In fact, 90 per cent of women in China were married before reaching the age of 30. An unmarried female in her late 20s was branded as “leftover” and “undesirable,” regarded incomplete, and considered one of the biggest signs of disrespect to her family. Women who were still single at age 30 were accorded “spinster status.”[[6]](#endnote-6)

On the other hand, the gender imbalance in China served as a crucial demographic equalizer (see Exhibit 1). Attributed primarily to China’s multi-decade-long one-child policy and the traditional Chinese preference for sons, there were 118 males for every 100 females in 2010. The result was a growing number of Chinese men having trouble finding brides. Of all unmarried Chinese people aged 35–39 years old, 88 per cent were male, whereas 99 per cent of all females aged 30–34 year old were married.[[7]](#endnote-7) By 2020, it was estimated that 30 million men of marrying age would be unable to find a wife, allowing women to be more selective in their choice of a marriage or dating partner.[[8]](#endnote-8)

Young Chinese adults typically met their significant other through mutual connections that included friends, family, close and distant relatives, co-workers, and previous classmates. It was also not uncommon for parents to post a brief description and sometimes even a picture of their son or daughter to publicly accessible bulletin boards, and to meet other like-minded parents in public parks with the objective of arranging the nuptials of their adult children. Such “marriage markets” were very popular in China (see Exhibit 2).

Evolving societal norms resulted in a greater preference for later marriage, typically after reaching the age of 25.[[9]](#endnote-9) Although traditionally divorces had been considered taboo in China, by 2014, the annual divorce rate had increased by 3.9 per cent to more than 3.63 million.[[10]](#endnote-10) Many people attributed this accelerated divorce rate to the well-entrenched, and increasing, adoption of social media across China. It was felt that venues such as Tantan, Momo (another location-based dating app), and WeChat (China’s most popular social networking site) made it easier to reach out to people, and to indulge in extramarital relationships.

Chinese culture remained conservative, and therefore it frowned upon casual relationships. This attitude was exemplified by the Ministry of Culture’s clampdown on Momo for allegedly encouraging prostitution.[[11]](#endnote-11) Although sex education in China was officially implemented in 2008, the curriculum was minimal, with very little focus on reproductive health and even less on contraception.[[12]](#endnote-12) At least 13 million medical terminations of pregnancy were undertaken annually, and 10 million “morning after” pills were sold each year.[[13]](#endnote-13) The impact of mass media on shaping the views around sex could not be understated. Television shows such as Girls and Masters of Sex had shifted previously conservative attitudes, catering instead to an urban, progressive stance.[[14]](#endnote-14) As the middle class in China continued to grow, people in the younger generation were less reliant on their parents, and had more buying power. In 1989, only an estimated 15 per cent of young Chinese adults had engaged in sex before marriage. However, in 2016, that percentage was estimated to have grown to well above 70 per cent, attributed to China’s burgeoning number of dating apps and its cultural transformation in the intervening years.[[15]](#endnote-15) China’s youth were now more likely than not to have engaged in both sex before marriage and casual sexual encounters (“one-night stands”), as premarital and extramarital sex became less taboo. As well, a heightened awareness and overall acceptance of homosexuality and LGBT (lesbian, gay, bisexual, and transgender) rights in major cities, coupled with the rise of more gay-specific apps such as Grindr, Blued, and Aloha, also resulted in the LGBT community’s greater participation in the online dating scene.

The targeted market for online dating apps comprised young Chinese adults between the ages of 20 and 27. During this age range, the vast majority of break-ups occurred, as college graduates moved to different geographic regions to take up employment, frequently leaving behind their established social circles. People born in 1995 entered an economy twice the size of the economy a decade earlier.[[16]](#endnote-16) With an estimated 905 million mobile Internet users and 532 million smartphones, and a projected compound annual growth rate of 7 per cent estimated to prevail until 2020, the Chinese mobile app market was booming (see Exhibit 3).[[17]](#endnote-17) Online dating in China really achieved critical mass in 2010, and had continued to grow year-over-year since then.[[18]](#endnote-18) In 2016, online dating was expected to generate approximately ¥3.15 billion[[19]](#endnote-19) in annual revenues (nearly US$500 million;[[20]](#endnote-20) see Exhibit 4), having grown by nearly 20 per cent year-over-year (see Exhibit 5).[[21]](#endnote-21) An increased familiarity with technology and its promise had fostered greater demand and higher expectations from mobile applications. With an emphasis on “now rather than later,” millennials—people born in the 1980s and 1990s—had developed into a generation of tech-savvy light-hearted individuals, who identified more easily with pop culture and displayed increasing affinity with localization and its advantages.

TANTAN’S LOVE LINE

Yu Wang, the CEO and founder of Tantan, was born in Beijing and at the age of seven moved with his family to Stockholm, Sweden, where he later studied computer science at KTH Royal Institute of Technology (KTH). An avid gamer, he excelled at the computer game QuakeWorld, which he played nearly 12 hours a day, to become one of the top 10 players in the world. Perhaps not surprisingly, his academic performance suffered and he nearly failed his first year at KTH. Realizing his mistake, Wang shifted his focus to his studies and graduated with dual degrees in computer science and industrial economics.[[22]](#endnote-22)

Upon graduation, he moved back to Beijing to start his first job at Ericsson as an engineer working on an open source telephony solution. The successful completion of this project saw Wang transitioning into mobile solutions at his supervisor’s own start-up, where he developed a roaming solution that permitted users to keep their telephone number and pay lower local rates. For his efforts, Wang was offered a 20 per cent stake in the company and the position of chief technology officer. However, he longed to work with younger, like-minded colleagues, and in 2007, he left the company to start his own venture with his friend Pan Ying, also known as Sophia, whom he later married.[[23]](#endnote-23)

The two entrepreneurs started a company called P1, which was an invitation-only fashion community platform. Local fashion photographers would, with permission, take pictures of people who displayed exceptional style, and invite them to join P1, where members could access their own pictures as well as those of other trendsetters. Wang and Sophia ran the company for nearly nine years, but found that its exclusive community presented a significant challenge to achieving adequate scale.[[24]](#endnote-24) In 2012, Wang added a function to the P1 community called Street Crush. This function permitted users to visit any profile, and to track incoming visitors to their own profile. If two users visited each other’s profile, they could start a conversation about their similar interests. An improved version of Street Crush featured the option of anonymity, whereby visits could be hidden unless both users clicked Secret Crush on each other’s profile. The Secret Crush function was later removed to avoid distracting users from P1’s core purpose—to create a community based on a common interest.[[25]](#endnote-25) However, the Secret Crush function eventually served as the precursor to Tantan.

Tantan was established in September 2015 as an extension of P1’s Secret Crush. Tantan targeted both heterosexual and gay relationship seekers in mainland China. Available in both Mandarin and English versions, the app could be accessed by anyone with a smartphone operating on an Android or IOS platform. The development of Tantan was heavily influenced by Wang’s previous work and his related life experience—in particular, the extension of P1’s Secret Crush website function and, prior to meeting Sophia, Wang’s loneliness (which might have been alleviated by an app such as Tantan). While working at Ericsson, surrounded by millions of people in the bustling metropolis of Beijing, Wang had felt that, given the conservative Chinese culture, there was no culturally acceptable way for an “outsider” like him to reach out to a potential partner.

He knew it was an opportune time to develop a dating app for mobile users because of the dearth of venues in China where young singles could meet and socialize with other like-minded individuals. Location-based dating apps such as Tinder were flourishing in the West, but had not yet made an impact in China. Wang felt that the existing Chinese online alternatives were either too marriage-oriented or too sex-oriented.[[26]](#endnote-26) Females, in particular, were hesitant to use the sex-oriented solutions that were coupled with a format where anyone could message anyone else. Apps such as Momo (Tantan’s direct competitor) were heavily subject to spam, and resulted in low response rates for males seeking increasingly elusive females.

To bridge the gap and solve these issues, Wang developed the Tantan dating app. Tantan had a tightly knit development team, consisting mostly of Swedish and Chinese employees. On February 3, 2015, Tantan raised $5 million in series A financing led by Bertelsmann Asia Investments.[[27]](#endnote-27) Bertelsmann had been an early investor in the digital media provider Audible, which was later acquired by Amazon.[[28]](#endnote-28) An additional $32 million in series C financing—this time led by DST Global, Vision Plus Capital, and LB Investment—was obtained in May 2016.[[29]](#endnote-29) Tantan remained a private company.

THE TANTAN APP

The Tantan app was a replica of the North American mobile dating app Tinder. It was very easy to download (see Exhibit 6), had nearly identical features to Tinder, and offered the same user experience. Tantan allowed its users, who needed to be at least 17 years of age, to make friends and meet potential partners by swiping left for “no” or right for “yes” on a selected set of photographs on the user’s profile, and then enabling a two-way chat for every mutual match. The app was available in both Mandarin and English, and with users’ permission could leverage a user’s social network profile information and location to find people nearby. A special feature included filtering out people the user already knew (based on their contact list and mutual contacts), so that users met only new people.

Tantan was not immune to mainland China’s Internet censorship, which typically flagged politically charged terms, such as “64” and “Bo Xilai,”[[30]](#endnote-30) and considered sexual content to also be controversial. Certain sexually charged phrases such as “hook-up buddy” or “get a room” were flagged in chat rooms and received a pop-up warning message in the app’s selected language.[[31]](#endnote-31) Any offensive language would be flagged, and the user was asked to think twice before sending it—one of Tantan’s differentiating factors. The app prioritized user experience, especially for female users.[[32]](#endnote-32) The number one issue that concerned female users was the prospect of receiving unwelcome sexual overtures from men. Tantan aimed to develop into more of a social platform, where people looked for friends and someone to chat with.

Tantan remained free to users, relying on advertising for its revenue. With nearly two million active users, generating around 100 million daily swipes, Tantan planned to charge a nominal fee of ¥5 per month for services once it reached 10 million users. The app enjoyed an active user rate of 80 per cent and a weekly retention rate between 55 and 60 per cent.[[33]](#endnote-33) Tantan’s promotional activity was primarily based on word of mouth, fostered by trust through personal connections, with first-hand user experience attesting to the app’s quality.[[34]](#endnote-34) Contrary to the popular promotional tactics of the time, Tantan used very little social media promotion because of China’s ban on the major social network websites (e.g., Facebook, Instagram, YouTube, and Twitter).

TANTAN’S RIVALS

Tantan had many competitors in the online dating landscape (see Exhibit 7). Momo was Tantan’s biggest mobile dating competitor. Launched in July 2011 and led by Tang Yang, Momo was a free location-based app with instant messaging available for all smartphone platforms and tablets. Momo was perceived as a flirty, “hook-up” app comparable to Tantan. Both apps encouraged strangers with similar interests to connect and expand their social circles with other nearby strangers.[[35]](#endnote-35) Some features on Momo included the ability to find nearby users, join groups, engage in message boards, and participate in nearby events. Moreover, users had the ability to go beyond instant messaging and play both single and multi-player games. Contrary to Tantan’s simple profiles, Momo’s users were encouraged to make Facebook-like profiles by providing more details about themselves in order for the app to identify more accurate matches with nearby strangers.

Momo gained major traction in the Chinese market as a leader in the mobile dating landscape; the user growth rate was exponential. Momo reached half a million users in December 2011—only one month after the release of the app.[[36]](#endnote-36) Three months later, the number of Momo users reached two million. One year later, it had reached 10 million users, and then surpassed the two milestones of 15 million users in October 2012 and 100 million users in February 2014.[[37]](#endnote-37) By June 2014, Momo claimed a total user base of 148 million, with 52.4 million monthly active users (MAU).[[38]](#endnote-38)

Given its unprecedented growth rate and popularity, Momo had no problem attracting investors. The app filed for an initial public offering in the United States on November 7, 2014, and raised $2.5 million in series A financing through Buttonwood Capital and Matrix Hong Kong.[[39]](#endnote-39) Momo completed its series B financing in October 2012 and series C financing a year later, by which time it had raised nearly $40 million.[[40]](#endnote-40) In May 2014, Momo raised $211.8 million in series D financing.

Momo earned revenue from three major areas: premium membership subscriptions, mobile games, and marketing. A premium membership costs approximately $2 per month or $17 per year.[[41]](#endnote-41) Benefits of the premium membership included VIP (very important person) logos, advanced search options, discounts in the emoticon store, higher limits on the maximum number of users in a group, and the ability for users to track recent visitors on their profiles. Additionally, Momo integrated mobile games into its platform to monetize its large user base. Third parties developed games, and the revenues were shared between Momo and its developer partners. Momo also launched Dao Dian Tong, a marketing tool that enabled local businesses to build their own pages and allowed users to find them. Over time, Momo anticipated connecting users to e-commerce companies as an additional source of revenue, including the e-commerce giant Alibaba.[[42]](#endnote-42)

After dominating the mobile dating landscape, the Momo app diversified by adding check-ins for venues and local interest groups. Momo’s executive team worked diligently to shift the public perception of the app toward a social network and away from its tainted perception as a “hook-up” app. It promoted itself as a social network for millennials, and its promotions contained little to no suggestion of dating **(**seeExhibit 8**)**. These efforts appeared to be successful. In early 2015, Momo could boast 78.1 million MAUs, 13 per cent higher than only a few months earlier, and 83 per cent higher year over year. Momo reported net revenues of $26.3 million in the first quarter of 2015, 383 per cent higher year over year. Perhaps most important, the app earned a net income of $6.7 million in the first quarter of 2015, compared with a loss of nearly $3 million at the end of 2014.[[43]](#endnote-43)

TINDER IN CHINA

In addition to tracking homegrown Chinese competitors, Wang also kept a wary eye on Tinder, the U.S.-based app that was credited with being the pioneer of location-based mobile dating apps. Since its inception by founder and CEO Sean Rad in September 2012, Tinder spanned 15 countries and had achieved an impressive user base of 50 million active users, including several celebrities. Tinder’s top foreign markets included Brazil and the United Kingdom, both of which had millions of users and a daily growth rate of 2 per cent (approximately 20,000 new users per day). Tinder had also been widely adopted in places as far as Dubai, Turkey, Egypt, Morocco, and South Africa, and was estimated to be in use by nearly 4 per cent of the Norwegian population. The app’s promoters claimed that users found matches four million times a day and generated 350 million daily swipes, equivalent to 4,000 matches around the world every second.[[44]](#endnote-44) Rad claimed that Tinder app users made 10 million matches and 750 million swipes every day. On average, users of the app checked their accounts 11 times per day and spent 90 minutes engaging with the app.[[45]](#endnote-45)

Tinder was owned by the Match Group, a division of Barry Diller’s IAC, which owned other dating sites such as OkCupid and Match.com. In November 2015, Match Group was part of an initial public offering that raised about $400 million, for an approximate valuation of $3 billion. Tinder played a pivotal role in Match Group’s appeal. In its prospectus notes filed with the Securities and Exchange Commission, the group reported Rad’s app as having “risen to scale and popularity faster than any other product in the dating category,” and that it particularly appealed to young users. According to one estimate, Tinder’s valuation as a freestanding operation could have been higher than $1 billion.[[46]](#endnote-46)

Rad and Tinder were no strangers to controversy. Rad had been named as defendant in a sexual harassment lawsuit, and had even been fired from his own company, only to be reinstated as CEO in August 2015. Tinder was striving hard to distance itself from the image of being a “glorified frat house” devoted solely to the promotion of casual sex.[[47]](#endnote-47) By some estimates, this effort had been successful. A survey conducted in the closing months of 2015 reportedly found that 80 per cent of Tinder app users were seeking more than just a “one-night stand.”[[48]](#endnote-48)

Rad had grand plans for Tinder. He was not limiting the app to user-data-informed advertising and subscription services, or only applications, for that matter. Rad explained his plans:

We have the potential to grab a massive audience, as big as Instagram’s or Snapchat’s, but the value we’re giving is so much greater than any of these social apps. . . . The matches made on Tinder can change lives. The Snapchat photo from two hours ago—who gives a [expletive]? [[49]](#endnote-49)

In March 2015, Tinder introduced Tinder Plus, a paid service that allowed unlimited matches, as opposed to the free version that limited the number of right swipes in a 12-hour period. Although many users were unhappy with the limited number of “likes” a free user could indicate and the company policy of charging different prices for different age groups (a Tinder Plus subscription was $19.99 per month for users over age 28, $9.99 per month for those 28 and under), at least some interested observers reported that Tinder’s swipe right limit was working.[[50]](#endnote-50)

Rad had expressed keen interest in China, and had even announced his intention to enter the Chinese market in 2013: “China is the market that I think about a lot. There are a lot of sensitivities around entering that market, but we’ve definitely done a fair amount of due diligence and we do have plans to enter the Chinese market.”

Despite his professed interest, however, Rad had to contend with at least one major stumbling block to his aspirations. Both Facebook and Instagram, the venues Tinder relied on to authenticate individual user identity, were banned in China, thus necessitating a major change in Tinder’s user acquisition strategy there.[[51]](#endnote-51) As well, most dating apps in China had been specifically tailored to the local market, a feature missing from Tinder. Many large American companies had overlooked the differences in the Chinese market to their own peril. Most recently, Uber had acknowledged its failure due to competition from Didi Chuxing, a homegrown ride-sharing company. There had been claims that under the leadership of Xi Jinping, the Chinese government’s preference for domestic service companies would exert even greater pressure on foreign competitors.[[52]](#endnote-52)

TANTAN VersuS TINDER

Similar to Tinder, Tantan relied on companion applications for users to further connect with each other. The company circumvented China’s ban on Facebook and Instagram by using the ubiquitous WeChat app, and requiring users to provide their phone numbers to verify membership. Celebrity and public figure verification, conducted so as to avoid impersonators, was available on Tinder but not on Tantan. Additionally, Tinder had far wider global reach, relative to Tantan, which allowed the app to provide its premium service Tinder Plus.[[53]](#endnote-53) The premium service effectively leveraged its vast worldwide user base to increase the chances of finding a soulmate beyond the confines of a single country or region.

Tinder also implemented a new 500-swipe limit over a two-hour period for basic users, in an effort to avoid spammers and web robots. The app also implemented a “super like” function, restricting basic users to only two “super likes” within a 12-hour period.[[54]](#endnote-54) Lastly, Tinder Plus included two new features that were unavailable in its free basic version: rewind and passport. Rewind allowed the user to return to the previous left-swiped profile in the event of a change of mind; passport gave users the ability to browse and chat with other users around the world and go beyond the default 100-mile (160-kilometre) radius.

However, Tinder remained an insignificant presence in China, restricted by its reliance on the China-banned sites. And yet, that issue had not dissuaded the firm from pursuing a premium-pricing approach there. In Beijing, Tinder planned to charge its users $14.99 for the first month, and $6.67 per month thereafter, or $10 for a six-month subscription.[[55]](#endnote-55)

TANTAN’S OTHER CHALLENGES

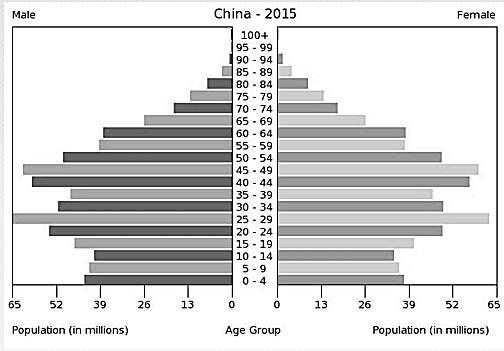
The popularity of a dating app rested on its ability to claim a large number of users, which also increased the probability of fake accounts and impersonators. Tantan was subject to this potential threat, and reacted to this issue by announcing the impending introduction of video verification. New users would be required to use their phones to make available a brief video snippet of themselves uttering a few words (e.g., “hello, Tantan”). Tantan personnel would then compare the snippet with the user’s profile for verification. Once verified by Tantan, the user had full access to the app. Tantan hoped this practice would reduce the incidence of fake accounts.

The problem of fake accounts and impersonations, however, paled in comparison with an even greater concern. In late November 2015, Larry Salibra (CEO of Pay4Bugs) discovered and publicly reported a significant security flaw in the Tantan app. In a damning repudiation of Tantan’s assurances with respect to its users’ privacy, Salibra claimed that any marginally competent hacker could access usernames, passwords, phone numbers, and even conversations occurring within the confines of the app. All information—user interests, hobbies, preferences regarding partner age, and even sexual orientation—was being transmitted in clear text across the Internet, devoid of any encryption whatsoever. To add to this concern, individual users could easily be tracked using coordinates and basic geometry on Google maps. Luckily, there had been no indication to date of a privacy breach. Tantan responded swiftly to this issue by making available an updated version of the app with improved encryption and a team dedicated to resolve all issues 24 hours a day, seven days a week.

CONCLUSION

Amid the promise of Tantan’s ever-increasing popularity, Wang still had many important decisions to make, as the first anniversary of his brainchild approached. Would Tantan live up to its hype? Or was it yet another brief success without a future?

EXHIBIT 1: CHINA’S DEMOGRAPHIC DISTRIBUTION



**Population growth rate:**

0.45 per cent (2015 estimate)

**Population growth compared to the rest of the world:** 162

**Urbanization:**

**Urban population:** 55.6 per cent of total population (2015)

**Rate of urbanization:** 3.05 per cent annual rate of change (2010–2015 estimate)

**Sex ratio:**

**At birth:** 1.15 males per 1 female

**0–14 years:** 1.17 males per 1 female

**15–24 years:** 1.13 males per 1 female

**Total population:** 1.06 males per 1 female (2015 estimate)

Source: “The World Factbook: Population Growth Rate,” Central Intelligence Agency, accessed August 27, 2016, www.cia.gov/library/publications/resources/the-world-factbook/docs/notesanddefs.html?; “The World Factbook: Rank Order” Central Intelligence Agency, accessed August 27, 2016, www.cia.gov/library/publications/resources/the-world-factbook/rankorder/2002rank.html#ch; “The World Factbook: Urbanization,” Central Intelligence Agency, accessed August 27, 2016, www.cia.gov/library/publications/resources/the-world-factbook/docs/notesanddefs.html?; “The World Factbook: Sex Ratio,” Central Intelligence Agency, accessed August 27, 2016, www.cia.gov/library/publications/resources/the-world-factbook/docs/notesanddefs.html?

EXHIBIT 2: MARRIAGE MARKET IN CHINA



Source: Photo used with permission; Cherry Flava, “On the Marriage Market in China,” May 12, 2016, accessed April 15, 2016, www.cherryflava.com/futures/on-the-rack-in-china/.

EXHIBIT 3: GROWTH RATE OF SMARTPHONE USE IN CHINA (2014–2020)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| **Smartphone users (in millions)** |  |  |  |  |  |  |  |
| **0–11** | 2.3 | 2.9 | 3.1 | 3.6 | 4.1 | 4.6 | 5.3 |
| **12–17** | 44.7 | 48.7 | 52.3 | 55.1 | 57.3 | 59.0 | 60.7 |
| **18–24** | 104.2 | 104.1 | 101.7 | 101.4 | 102.0 | 102.1 | 99.3 |
| **25–34** | 129.7 | 141.9 | 149.6 | 154.5 | 165.1 | 173.7 | 181.2 |
| **35–44** | 94.7 | 104.5 | 113.1 | 124.4 | 136.1 | 145.0 | 151.3 |
| **45–54** | 49.6 | 61.9 | 74.1 | 85.3 | 97.2 | 110.8 | 124.2 |
| **55–64** | 18.6 | 23.3 | 28.0 | 32.9 | 40.2 | 47.5 | 55.3 |
| **65+** | 5.0 | 7.1 | 9.8 | 13.4 | 16.9 | 20.6 | 25.5 |
| **Total** | 448.8 | 494.4 | 531.7 | 570.6 | 618.9 | 663.4 | 702.8 |
|  |  |  |  |  |  |  |  |
| **Smartphone user growth (% change)** |  |  |  |  |  |  |  |
| **0–11** | 25.90 | 24.40 | 8.90 | 15.70 | 14.90 | 11.60 | 15.80 |
| **12–17** | 17.80 | 9.00 | 7.30 | 5.30 | 4.00 | 3.10 | 2.80 |
| **18–24** | 6.70 | –0.10 | –2.30 | –0.30 | 0.60 | 0.10 | –2.80 |
| **25–34** | 4.10 | 9.30 | 5.50 | 3.30 | 6.90 | 5.20 | 4.30 |
| **35–44** | 17.80 | 10.40 | 8.20 | 9.90 | 9.40 | 6.60 | 4.30 |
| **45–54** | 32.10 | 24.80 | 19.60 | 15.20 | 13.90 | 14.00 | 12.10 |
| **55–64** | 27.20 | 25.60 | 20.10 | 17.50 | 22.10 | 18.10 | 16.40 |
| **65+** | 29.20 | 42.50 | 37.00 | 37.30 | 25.80 | 22.30 | 23.40 |
| **Across Age Groups** | 12.60 | 10.20 | 7.50 | 7.30 | 8.50 | 7.20 | 5.90 |
|  | | | | | | | | |

Note: Methodology: Estimates are based on the analysis of survey and traffic data from research firms and regulatory agencies, historical trends, and country-specific demographic and socioeconomic factors. Data include individuals who own at least one smartphone and use the smartphone(s) at least once per month; excludes Hong Kong; numbers may not add up to total due to rounding. Smartphones are any voice handset with an advanced operating system (e.g., Android, BlackBerry, iOS, Windows Phone, etc.) and features/capabilities that resemble those of a personal computer.

Source: Data compiled by the author with information from “Data and Research on Digital for Business Professionals,” *eMarketer*, accessed April 18, 2016, www.emarketer.com.

EXHIBIT 4: MARKET VOLUME OF ONLINE DATING MARKET IN CHINA, 2016

(IN ¥ BILLION)

Note: US$1 = ¥6.64 on July 29, 2016.

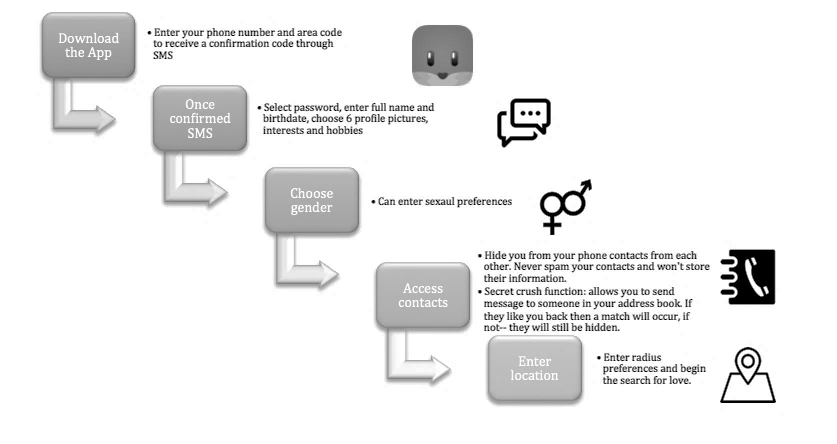
Source: “Market Volume of Online Dating Market in China 2016,” Statista, iResearch Report, April 2016.

EXHIBIT 5: GROWTH RATE OF ONLINE DATING MARKET VOLUME IN CHINA, 2010 to 2016

(IN NUMBER OF USERS)

Source: “Growth Rate of Online Dating Market Volume in China from 2010–2016,” Statista, iResearch Report, accessed April 10, 2016, www.statista.com/statistics/385848/china-growth-rate-online-dating-market-volume/.

EXHIBIT 6: PROCESS OF DOWNLOADING TANTAN



Source: Company information.

EXHIBIT 7: DATING Application (APP) COMPETITORS



EXHIBIT 7 (continued)



Note: IPO = initial public offering

Source: Data compiled by the authors based on information from Green, B. “8 Apps and Websites That Are Changing the Way China Does Dating,” eChinaCities, September 1, 2015, accessed April 23, 2016, www.echinacities.com/expat-corner/8-Apps-and-Websites-that-are-Changing-the-Way-China-Does-Dating; “The 6 Chinese Dating Websites,” China Whisper, accessed April 23, 2016, www.chinawhisper.com/the-6-chinese-dating-websites/; “What Are Popular Gay and Lesbian Apps in China?” Global Times, accessed April 23, 2016, http://onestop.globaltimes.cn/what-are-popular-gay-and-lesbian-apps-in-china/.

EXHIBIT 8: EXAMPLE OF MOMO ADVERTISEMENT



Source: Photo used with permission. “This Chinese Flirty App Made a Risky Bet by Becoming a Social Network. It’s Paying off Big Time,” TechinAsia, accessed August 27, 2016, www.techinasia.com/momo-app-morphs-from-flirting-to-communities.

ENDNOTES

1. This case has been written on the basis of published sources only. Consequently, the interpretation and perspectives presented in this case are not necessarily those of TanTan or any of its employees. [↑](#endnote-ref-1)
2. “Yu Wang, CEO and Co-founder of Tantan, Currently China’s Second Largest App, AMA,” Reddit, November 25, 2015, accessed April 10, 2016, www.reddit.com/r/China/comments/3u77fc/yu\_wang\_ceo\_and\_cofounder\_of\_Tantan\_currently. [↑](#endnote-ref-2)
3. “Women and Men in China, 25,” National Bureau of Statistics of China, accessed April 10, 2016, www.stats.gov.cn/tjsj/ndsj/2012/indexeh.htm. [↑](#endnote-ref-3)
4. “Gender Imbalance in China, All Girls Allowed,” accessed April 23, 2016, www.allgirlsallowed.org/gender-imbalance-china-statistics#\_edn16. [↑](#endnote-ref-4)
5. Yuan Ren, “China’s ‘Leftover Women’: What It’s Really Like Being Unmarried at 30,” The Telegraph, April 11, 2016, accessed April 20, 2016, www.telegraph.co.uk/women/life/chinas-leftover-women-what-its-really-like-being-unmarried-at-30/. [↑](#endnote-ref-5)
6. Ibid. [↑](#endnote-ref-6)
7. Joseph Tucker, Gail Henderson, Tian Wang, Ying Huang, William Parish, Sui Pan, Xiang Chen, and Myron Cohen, “Surplus Men, Sex Work, and the Spread of HIV in China,” AIDS 19, no. 6 (2005): 539–547, accessed October 24, 2016, http://journals.lww.com/aidsonline/fulltext/2005/04080/surplus\_men,\_sex\_work,\_and\_the\_spread\_of\_hiv\_in.1.aspx. [↑](#endnote-ref-7)
8. “China’s Mainland Population Grows to 1.3397 Billion in 2010: Census Data,” English.news.cn, April 28, 2011, accessed April 28, 2015, http://news.xinhuanet.com/english2010/china/2011-04/28/c\_13849795.htm. [↑](#endnote-ref-8)
9. Mary Kay Magistad, “China’s ‘Leftover Women,’ Unmarried at 27,” *BBC News Magazine*, February 21, 2013, accessed April 23, 2016, www.bbc.com/news/magazine-21320560. [↑](#endnote-ref-9)
10. Yiying Fan, “‘Divorced Yet?’—Why China Has a Soaring Divorce Rate,” What’s on Weibo, July 16, 2015, accessed April 25, 2016, www.whatsonweibo.com/divorced-yet-why-china-has-a-soaring-divorce-rate/. [↑](#endnote-ref-10)
11. Rohan Malhotra, “The Evolution of China’s Dating Apps,” Tech in Asia, June 11, 2015, accessed April 23, 2016, www.techinasia.com/evolution-chinas-dating-apps. [↑](#endnote-ref-11)
12. “Sex Education in China,” CCTV News, September 2011, accessed April 23, 2016, http://english.cntv.cn/special/sexedu/01/. [↑](#endnote-ref-12)
13. David Batty, “13 Million Abortions Carried Out Every Year in China, Newspaper Reveals,” *The Guardian*, July 30, 2009, accessed April 23, 2016, https://www.theguardian.com/world/2009/jul/30/china-abortion-statistics. [↑](#endnote-ref-13)
14. “Gender Imbalance in China” op. cit. [↑](#endnote-ref-14)
15. William Wang, “China’s Sexual Revolution: Traditions Die as Love Goes Digital,” *The Star*, October 19, 2015, accessed April 12, 2016, www.thestar.com/news/world/2015/10/19/chinas-sexual-revolution-traditions-die-as-love-goes-digital.html. [↑](#endnote-ref-15)
16. Chris Russell, “New Youth: Understanding China’s Millennials,” CKGSB Education, February 3, 2016, accessed April 23, 2016, http://knowledge.ckgsb.edu.cn/2016/02/03/demographics/new-youth-understanding-chinas-millennials/. [↑](#endnote-ref-16)
17. “China Mobile Advertising: Heady Growth amid Economic Uncertainty,” eMarketer, January 25, 2016, 2–4, accessed April 12, 2016, www.emarketer.com/Report/China-Mobile-Advertising-Heady-Growth-amid-Economic-Uncertainty/2001741. [↑](#endnote-ref-17)
18. “Growth Rate of the Online Dating Market Volume in China from 2010 to 2016,” Statista, 2016, accessed December 23, 2016, <https://www.statista.com/statistics/385848/china-growth-rate-online-dating-market-volume/>. [↑](#endnote-ref-18)
19. ¥ = RMB = Chinese renminbi; US$1 = ¥6.64 on July 29, 2016. [↑](#endnote-ref-19)
20. All currency amounts are in US$ unless otherwise specified. [↑](#endnote-ref-20)
21. “Market Volume of Online Dating Market in China from 2010 to 2016 (in Billion Yuan),” Statista, 2016, accessed December 23, 2016, https://www.statista.com/statistics/385811/china-market-volume-of-online-dating-market/. [↑](#endnote-ref-21)
22. “Yu Wang, CEO and Co-founder of Tantan, Currently China’s Second Largest App, AMA,” op. cit. [↑](#endnote-ref-22)
23. Ibid. [↑](#endnote-ref-23)
24. Ibid. [↑](#endnote-ref-24)
25. Ibid. [↑](#endnote-ref-25)
26. Ibid. [↑](#endnote-ref-26)
27. C. Custer, “Tantan, a Chinese Tinder Clone, Raises $5M Series A,” Tech in Asia, February 2, 2015, accessed April 10, 2016, www.techinasia.com/Tantan-chinese-tinder-clone-raises-5m-series. [↑](#endnote-ref-27)
28. Liza Lin, “Startups See Dollars in China’s Young and Lonely,” BloombergBusinessWeek, June 3, 2015, accessed April 10, 2016, www.bloomberg.com/news/articles/2015-06-03/in-china-a-surfeit-of-online-dating-startups. [↑](#endnote-ref-28)
29. Jillian Yue, “DST Global Co-Leads $32M Series C Round in Mobile App Tantan,” China Money Network, May 18, 2016, accessed June 1, 2016, www.chinamoneynetwork.com/2016/05/18/dst-global-co-leads-32m-series-c-round-in-mobile-app-Tantan. [↑](#endnote-ref-29)
30. The term “64” refers to the month and day of the Tiananmen Square protest (June 4); Bo Xilai was an ousted politician from China’s Communist Party. [↑](#endnote-ref-30)
31. Larry Salibra, “How Chinese Tinder Clone Screws You,” Larry Salibra, (blog), November 27, 2015, accessed April 23, 2016, www.larrysalibra.com/how-chinese-tinder-clone-screws-you/. [↑](#endnote-ref-31)
32. Ibid. [↑](#endnote-ref-32)
33. “Yu Wang, CEO and Co-founder of Tantan, Currently China’s Second Largest App, AMA,” op. cit. [↑](#endnote-ref-33)
34. Ibid. [↑](#endnote-ref-34)
35. “About Us,” Momo, accessed August 3, 2016, www.immomo.com/aboutus.html. [↑](#endnote-ref-35)
36. Ben Jiang, “Mobile Social App Momo Surpasses Half a Million Users, Coming to Android,” TechNode, December 22, 2011, accessed August 3, 2016, http://technode.com/2011/12/22/mobile-social-app-momo-surpasses-half-a-million-users-coming-to-android/. [↑](#endnote-ref-36)
37. Steven Millward, “Momo App Hits 10 Million Users, a Whole Lot of Flirting Going On,” Tech in Asia, August 1, 2012, accessed August 3, 2016, www.techinasia.com/momo-app-10-million-users. [↑](#endnote-ref-37)
38. Tracey Xiang, “Momo: China’s Next Social Conglomerate?” TechNode, October 13, 2013, accessed August 3, 2016, http://technode.com/2014/10/13/momo-china-next-social-conglomerate/. [↑](#endnote-ref-38)
39. “Social Networking App Momo Said to Close 2nd-Round Financing,” Contact Center Solutions Industry News, August 3, 2012, accessed August 3, 2016, http://callcenterinfo.tmcnet.com/news/2012/08/03/6484908.htm. [↑](#endnote-ref-39)
40. Willis Wee, “Momo App Receives $40 Million in Funding, Is Alibaba Involved?” Tech in Asia, August 23, 2012, accessed August 5, 2016, www.techinasia.com/momo-app-alibaba-funding. [↑](#endnote-ref-40)
41. Horwitz, “Chinese Flirting App Momo Targets Monetization Premium Membership,” The Next Web, August 2013, accessed August 5, 2016, http://thenextweb.com/asia/2013/06/28/chinese-flirting-app-momo-targets-monetization-with-introduction-of-premium-membership-and-stickers/. [↑](#endnote-ref-41)
42. “EDGAR, Filing Documents Detail for Momo Inc.,” U.S. Securities and Exchange Commission, accessed August 5, 2016, https://www.sec.gov/Archives/edgar/data/1610601/000119312514403408/0001193125-14-403408-index.htm. [↑](#endnote-ref-42)
43. Steven Millward, “This Chinese Flirty App Made a Risky Bet by Becoming a Social Network. It’s Paying off Big Time,” Tech in Asia, May 19, 2015, accessed August 5, 2016, www.techinasia.com/momo-app-morphs-from-flirting-to-communities. [↑](#endnote-ref-43)
44. J.J. Colao, “Tinder Goes Abroad: Dating App Catches on in UK, Brazil and . . . Dubai?” Forbes, November 22, 2013, accessed August 28, 2016, www.forbes.com/sites/jjcolao/2013/11/22/tinder-goes-abroad-dating-app-catches-on-in-uk-brazil-and-dubai/#2870bb7588b9. [↑](#endnote-ref-44)
45. “Tinder: The Online Dating App Everyone’s STILL Talking about,” Marie Claire, October 18, 2016, accessed August 28, 2016, www.marieclaire.co.uk/blogs/543941/tinder-the-online-dating-app-that-everyone-s-talking-about.html. [↑](#endnote-ref-45)
46. Austin Carr, “What’s Really Going on Inside Tinder?,” Fast Company, January 11, 2016, accessed August 28, 2016, www.fastcompany.com/3054904/is-controversial-tinder-ceo-sean-rad-ready-to-grow-up. [↑](#endnote-ref-46)
47. Ibid. [↑](#endnote-ref-47)
48. Ibid. [↑](#endnote-ref-48)
49. Ibid. [↑](#endnote-ref-49)
50. Jacqueline Till, “Improve Your Tinder Dating with Tinder Apps,” Top Mobile Trends, August 4, 2015, accessed August 18, 2016, http://topmobiletrends.com/best-tinder-apps/. [↑](#endnote-ref-50)
51. Katrina Bishop, “Dating in China to Heat Up? Tinder’s on the Way,” CNBC, December 12, 2013, accessed August 28, 2016, www.cnbc.com/2013/12/12/dating-in-china-to-heat-up-tinders-on-the-way.html. [↑](#endnote-ref-51)
52. Linette Lopez, “This Is Why Uber Failed in China,” Business Insider, August 2, 2016, accessed August 28, 2016, www.businessinsider.com/why-uber-failed-in-china-2016-8. [↑](#endnote-ref-52)
53. Alan Van, “Tinder Finally Creates a ‘Rewind’ Button, but Decides to Charge Users Whatever the Hell They Want for It,” Nextshark, March 3, 2015, accessed April 23, 2016, http://nextshark.com/tinder-finally-creates-a-rewind-button-but-decides-to-charge-users-whatever-the-hell-they-want-for-it/. [↑](#endnote-ref-53)
54. Lizzie Plaugic, “Tinder Will Now Let You ‘Super Like’ the People You Really Like,” The Verge, October 1, 2015, accessed April 23, 2016, www.theverge.com/2015/10/1/9431383/tinder-super-like-available-now. [↑](#endnote-ref-54)
55. Guest Writer, “3 Things You Need to Know about Tinder and Its Chinese Clone Tantan,” All in China Tech, November 24, 2015, accessed April 23, 2016, www.allchinatech.com/tinder-and-Tantan/. [↑](#endnote-ref-55)