

LANDSCAPE OF MOBILE-ASSISTED LANGUAGE LEARNING APPLICATIONS (MALL)

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Abstract

This thesis was done to increase knowledge of the competitive aspects of a new and unstudied MLLA market. A multiple case study was chosen as the method to investigate certain case companies that have proven themselves in the market over a lengthy period. Information for the study was gathered from public sources including news articles and websites related to the case companies.

The findings from individual cases were presented in the strategic analysis tool Ansoff matrix. Individual cases were included in meta-analysis to determine factors that seem to be trending within the market. The result was a MALL focused version of Ansoff Matrix that combines the used strategies within a single matrix framework.

Findings from the meta-analysis suggest that there are certain key differences and similarities in the strategic routes the companies have taken but most of the decisions seem to be made in isolation from the competitors.

Keywords MALL, Mobile-Assisted Language learning, Strategic analysis, Ansoff Matrix

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Tiivistelmä

Tämä tutkielma tehtiin mobiilikäyttöisten kielisovellusten strategisten valintojen ymmärtämiseksi, koska vastaava analyysi puuttuu tieteelliseltä kentältä lähes kokonaan. Tutkimusmetodiksi valikoitui monitapaustutkimus, joka mahdollistaa isomman ilmiön tutkimisen yksittäisten analyysikohteiden yhdistämisen avulla. Tutkimuksen data kerättiin avoimista internet-lähteistä, jotka koostuivat uutisartikkeleista ja tapaustutkimuksen yrityksiin liittyvistä sivuista.

Yksittäisten tapaustutkimusten löydökset esitettiin strategisen analyysityökalu Ansoffin matriisin kautta. Nämä löydökset yhdistettiin yhdeksi kokonaisuudeksi, josta saatiin luotua kielisovellusten strategioista yhdistetty oma matriisi.

Monitapaustutkimuksen meta-analyysistä on todettavissa selkeitä yhtäläisyyksiä sekä eroavaisuuksia, mutta vaikuttaa että yritykset toimivat itsenäisesti liikaa välittämättä muiden yritysten strategisista valinnoista.

Avainsanat Mobiilikäyttöiset kielisovellukset, Strateginen analyysi, Ansoffin matriisi

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1 Introduction

1.1 Motivation

Globalization and the era of mobile phones has created a huge demand for easily accessible language learning applications. Mobile Assisted Language Learning (MALL) applications have only been around for 15 years. In this period the applications have been mostly analyzed through their pedagogical effectiveness ((Puebla *et al.*, 2022)(Gangaiamaran and Pasupathi, 2017)(Sung, Chang and Yang, 2015). The number of studies started to grow rapidly in 2008 but turned to a decline after 2012 (Wu *et al.*, 2016).

An insignificant number of research articles assess the competitive strategies of these companies, which creates a massive research gap. According to literature review, studies on strategic initiatives have not been conducted on any other mobile applications market either. This brings the core value for this thesis.

The short lifespan of the industry makes up for an interesting angle to inspect the complete strategic routes the companies have taken since their launch. During these 15 years MALL companies have had to adapt their strategies according to the development of the market and partly in accordance with the strategic moves made by their competitors.

1.2 Objectives and scope

Research question:

What are the competition strategies the case MALL applications are using and how do they compare to each other?

The objective of this thesis is to answer the research question and fill a research gap by developing a descriptive overview of how the most popular commercially available language applications are competing worldwide. This is done through thorough research using public outlets providing information on strategic initiatives performed by companies that were selected for this study. The goal is to come up with a set of dominating strategies and to present how the competitors are acting in response to one another.

The scope of this multiple case study is narrowed down to just 4 companies to allow for in-depth research and to maintain clarity and comparability of the data. Also, strategic initiatives can include an almost unlimited number of actions. Therefore, this research does

not aim to include all these strategies and will instead be focusing on the major ones that can be easily validated and put on a timeline for comparison. Validations will be done through public sources, as it would be too risky to rely on having interviews from all - if any of the case companies granted. An objective point of view is used, which is why the public motives and missions of companies are left out of the analysis. Other limitations of research techniques are discussed more in detail within chapter 4.3.

1.3 Structure of the thesis

This thesis starts with a literature review on Mobile Assisted Language Learning (MALL) applications. System designing technique gamification is also brought up to explain one of the core drivers behind the success of these applications. Previous studies on strategic factors of the MALL market are presented.

Following the introduction on the main subjects of the analysis, strategic analysis tool Ansoff Matrix is discussed in detail to explain how it can be used to analyze competitive strategies. Once the literature review is done the research method is discussed more in detail to explain what types of strategic initiatives are included in the analysis and which ones were decided to be left out.

After the method is explained, the findings of the implemented features are first examined. Their definitions and time of addition are also presented. These features are also partly represented in the following section, where the other strategic initiatives used by companies are presented in isolation from one another.

As Stake (2006, p.132-134) stated, it is important to explain the individual findings on a general level, before starting to look for synergies between them. The strategic initiatives are divided into certain subsections according to Ansoff's Matrix. In addition to visual tables, this section includes literal explanations of the strategic initiatives of the companies to explain some of the thought processes behind the decisions.

After touching on the decisions on an organizational level a meta-analysis is performed on the findings to discover any indicators that showcase companies acting in response to each others' strategies. All the strategic initiatives are categorized and placed into the matrix according to their strategic nature.

2 Literature review

The focus of this literature review is to present previous research done on MALL applications. Terminology around application. More importantly, how mobile applications have revolutionized the way of teaching languages by decreasing the cost of participating closer to zero. Application design tool called *gamification* is inspected as the most important motivation boosting psychological tool in applications. Economical and historical aspects of LLA business environment are discussed.

A growing number of studies are being done on language applications in general. As the topic of language learning is highly connected to education, this is an attractive topic for researchers from the educational field and therefore the pedagogical point of view is overly represented in the studies available.

2.1 Mobile-assisted language learning

Mobile assisted language learning or MALL is a definition that is rather self explanatory: a mobile device (mobile phone, tablet or laptop) is used to assist their user to learn or enhance their current knowledge in a certain language. (Chinnery, 2006) Language lessons moving to mobiles was a natural follow-up after the introduction of mobiles. Teaching software was previously on computers during the era of Computer-Assisted Language Learning CALL). MALL applications apps are far from being the leading way of teaching languages, but are still considered as a powerful enhancement to support teaching (Sung, Chang and Yang, 2015).

MALL market is growing and is expected to keep growing as mobiles become more accessible to people. The number of mobile users globally has been on an upward trajectory on a yearly average speed of 14% for the past decade. (Statista, 2023) Technological innovations and globalization keep increasing the demand for second-language acquisition (SLA) as the barriers of communication and work options become smaller. (Scacchi, 2022)

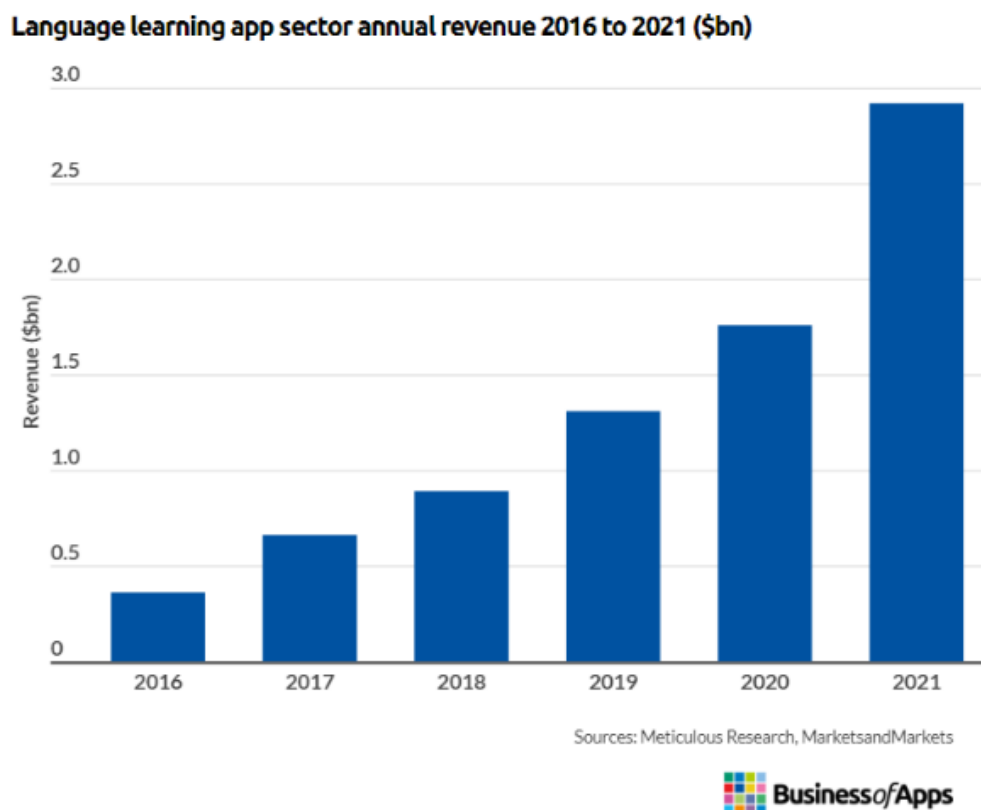


Figure 1. Language Learning App Revenue and Usage Statistics (Business of Apps, 2023)

2.2 Gamification

The definition of gamification has varied since it was first introduced by Nick Pelling in 2002 (Pelling, 2011) but the general consensus among researchers ((Deterding, 2012), (Huotari and Hamari, 2012),) remains the same throughout literature. It can be summarized as a way of implementing game-like features to non-game settings, such as digital services. These features increase the motivation towards the wanted goal, which can for example be to learn a new language. Motivation can be dissected to *intrinsic* and *extrinsic* motivation. Intrinsic motivation refers to the motivation that comes from the inside of the player, such as ambition to understand a foreign culture better. Extrinsic motivation motivates the player from the outside. It can be either negative - such as losing the ability to play the game more - or positive, such as monetary rewards.

Gamifications growth was not that rapid but it really started to gain popularity just before 2010. (Deterding *et al.*, 2011) More studies of its effectiveness had gone out and working real-world examples in business settings could be seen. One of the most successful implementations of gamification was done by map application Foursquare, which launched

in 2009. They offered a gamified map service, where you could gain points and badges for visiting different places while sharing your location with the application. People were visiting places just for the sake of beating others in the leaderboards. Chapman et al. (2021) discussed Foursquare's case in detail and claimed that much of the effectiveness of gamification came down to the control that the seducing nature of gamification provided. You could say that users were kept on a digital leash, where they had the urge to receive more satisfaction from the digital tasks. This is why gamification can be an essential part of monetizing a digital service: it allows the service provider to steer its customers towards certain actions that create something valuable. In Foursquare's example, they could sell the movement data to other businesses who could use it in their business setting.

2.3 Gamification in language learning

Increasing number of human interactions happens in a game-like setting, where human behavior is controlled by both intentional and unintentional gamified nature of the situation (Hamari, 2019). Gamification is shown to create beneficial and overall positive effect on users' cognitive performance in different studies ((Hamari, et al. 2014)(Sailer and Homner, 2020)). Even though there is serious effort on finding the most optimal gamification features, it is still yet to be determined which combination leads to the most effective cognitive learning experience. (Sailer and Homner, 2020) It is also a common misconception to think that sprinkling random gamified elements to any instance would have similar effect as they would in an actual gaming context. (Ferrara, 2013)

A breakthrough study by Govender and Arnedo-Moreno (2020) presented a table of comparison for 20 of the most popular language learning applications and their usage of gamified elements that can be seen in figure 1 below. It includes 27 elements created by Marczewski's (2015) listing of so-called "user types", which are different categorizations for players with different behavioral traits (socializer, free spirit, achiever, philanthropist, disruptor and player). It is worth noting that not all developers have chosen the way of flooding their applications with all types of gamified elements. Duolingo has almost all 27 elements applied to their application, yet one of their most popular competitors, Babbel has chosen a completely different path. They have chosen a more social way of teaching, where human interaction – such as "traditional" language teaching lessons is in the center of their product. Instead of creating an automated teaching tool, they do not feel like their

applications need all these elements, which is why they had only implemented 5 out of the recognized options in 2020.

Gamification Element	Duo	EWA	Drop	Mem	HeCh	LeMa	Wlin	HeEn	Luv	Busu	Mond	Babb	Rose	SpTr	VTLC	Bunp	SpPa	ChSk	Deer	SCAI	Total
General																					
On-boarding/Tutorials	Y	N	Y	N	Y	N	Y	Y	N	Y	Y	N	Y	N	N	N	N	Y	Y	Y	11
Signposting	N	N	Y	N	Y	Y	N	Y	N	N	N	N	Y	Y	Y	Y	N	N	Y	Y	10
Loss Aversion	Y	Y	N	Y	N	N	N	N	N	N	Y	N	N	Y	N	N	N	N	Y	Y	7
Progress/Feedback	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	19
Theme	Y	N	Y	Y	Y	Y	N	Y	Y	N	N	N	N	Y	N	N	N	Y	Y	Y	11
Narrative/Story	N	Y	N	N	Y	N	N	Y	N	N	Y	N	N	N	N	N	N	Y	N	Y	7
Time Pressure	Y	N	Y	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	Y	6
Flow	Y	N	Y	Y	Y	N	Y	Y	N	Y	Y	Y	N	Y	N	Y	N	Y	Y	Y	13
Reward Schedule																					
Fixed Reward Schedule	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	N	N	Y	Y	Y	15
Time-Dependent Rewards	Y	N	N	Y	Y	N	N	Y	N	N	N	N	N	N	N	N	N	Y	N	Y	6
Socialiser																					
Guilds/Teams	Y	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	2
Social Network	Y	N	N	Y	N	Y	N	Y	N	Y	Y	N	N	N	N	N	N	N	Y	Y	8
Social Status	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	2
Competition	Y	Y	N	Y	N	Y	N	Y	N	N	Y	N	N	N	N	N	N	N	Y	N	7
Free Spirit																					
Creativity Tools	N	N	Y	Y	Y	Y	N	Y	N	Y	N	N	N	Y	Y	N	N	N	Y	Y	10
Customisation	Y	N	N	Y	N	Y	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	Y	7
Achiever																					
Challenges	Y	N	Y	Y	Y	Y	N	N	N	Y	N	N	N	N	N	N	Y	Y	Y	Y	10
Certificates	N	N	N	N	N	N	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	2
Quests	Y	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	2
Levels/Progression	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	19
Philanthropists																					
Sharing Knowledge	Y	N	N	N	Y	N	N	Y	N	Y	N	N	N	N	N	N	N	N	N	Y	5
Disruptor																					
Voting/Voice	Y	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	4
Anonymity	Y	N	N	N	Y	N	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	Y	6
Player																					
Points/Experience (XP)	Y	N	N	Y	Y	Y	N	N	N	N	Y	N	N	Y	Y	N	Y	Y	Y	Y	12
Leaderboards/Ladders	Y	N	N	Y	N	Y	N	Y	N	N	Y	N	N	N	Y	N	N	N	Y	N	7
Badges/Achievements	Y	N	Y	N	Y	Y	N	Y	Y	N	Y	Y	N	N	Y	N	Y	Y	Y	Y	13
Virtual Economy	Y	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	4
Total	22	7	10	14	15	13	6	22	5	13	12	5	4	9	6	3	7	10	21	21	

Summary of gamification data taken from SDLLAs

Table 1 / Summary of gamification data taken from SDLLA's (Govender & Arnedo-Moreno, 2020)

2.4 Strategic analysis of MALL applications

One of the most influential strategic study on MALL applications was done recently by Sakalauske and Leonaviciute (2022). They analyzed Duolingo with 3 tools: SWOT was used to determine Duolingo's Strengths, Weaknesses, Opportunities, and Threats. Porter's Five Forces was used to analyze the language learning industry's threat of new entrants, substitute products, bargaining power of suppliers and competition among current rivals. And VRIO was used to analyze Value, Rareness, Imitability and Organization of Duolingo.

They found that even though the industry is competitive, Duolingo is in a good position to deal with the smaller players due to the competitive advantages it has built during its years as the dominant language application. They distinguished the elements that give Duolingo competitive advantages through a VRIO chart below. The *Resources and capabilities* columns bottom half includes topics that could be difficult to showcase historically, such as Brand recognition and image, Accumulated user data and Patented algorithms. On the top we see Accessibility (pricing), Addictive method (gamified design), Duolingo English test, Duolingo for Schools, and Language diversity. These topics could create an interesting cross-company analysis as historical data could be easier to find.

Resources and capabilities	Valuable	Rare	Inimitable	Organized	Competitive advantage
<i>Accessibility.</i> Free access to the platform guarantees a steady user stream, however, there is a lot of free content available on the web	Yes	No			Competitive parity
<i>Addictive method.</i> The immersive experience is an innovation and has not been replicated so far to the extent of Duolingo, but it would not be difficult to copy the existing model	Yes	Yes	No		Temporary competitive advantage
<i>Duolingo English Test.</i> While the proctored online testing method or the test itself is not an innovation, its acceptance in 3,000 institutions is a rare asset, yet it can still be replicated	Yes	Yes	No		Temporary competitive advantage
<i>Duolingo for Schools.</i> Offering a free app for schools is consistent with Duolingo's mission and not a lot of companies offer a similar service. However, adapting existing content and algorithm would not be complicated	Yes	Yes	No		Temporary competitive advantage
<i>Language diversity and content.</i> The amount of languages offered and the volume of the courses attracts users, building such an amount of content takes years and therefore is not easily replicable. The company has the skills to maintain the level of quality to capture value	Yes	Yes	Yes	Yes	Sustained competitive advantage
<i>Brand recognition and image.</i> Duolingo has cultivated their image and social media presence over the years. Imitating that would not only take time and effort, but also specific social media skills	Yes	Yes	Yes	Yes	Sustained competitive advantage
<i>Accumulated user data.</i> Duolingo user data has been collected and analyzed via A/B testing. It's not something that can be acquired easily. The technology skills are organized around this capability	Yes	Yes	Yes	Yes	Sustained competitive advantage
<i>Patented algorithms.</i> Since Duolingo has the exclusive rights to their patented technology, a potential competitor would need to either get Duolingo consent to use it or develop a different enough algorithm to achieve the same effect	Yes	Yes	Yes	Yes	Sustained competitive advantage

Successful mobile applications require a good product that is priced and marketed accordingly. The decision of making an application free to use is backed up by research. Liu, Au and Choi (2014) found that making your application free to use benefits the developers of the application through increased sales on the premium services. This happens if the experience with the free version is positive.

Daniel Ershov (2018) showed interesting results with 2012 and 2013 mobile applications data. The influence of the so-called "Superstar" effect of applications was examined. He proved that these Superstar apps who gain severe popularity over other competition do

increase the amount of demand in the market. People who become interested in e.g., language learning applications, do most likely get introduced to a list of “best language learning applications.” Therefore, to discover and install these new and less popular applications the user must dedicate so-called search costs and attention to finding them. The chance that a newer application is discovered by a user is smaller than it would be if the superstar applications were not around, and the competition was more even. The newer applications are also lower quality than the ones that existed previously.

3 Theoretical grounding

This study builds on the Ansoff matrix to present the main growth strategies the case MALL applications have chosen. The following chapter introduces the Ansoff Matrix as a tool and describes the 4 dimensions it contains.

3.1 Ansoff matrix

Ansoff matrix was first introduced by Igor Ansoff in 1957 and has been ever since known as one of the most effective strategical tools for a company to diversify their portfolio. In studies analyzing its use it is noted as one of the most important tools to analyze strategical risks related to diversifying (Loredana, 2017). At the time it was launched, companies were operating in a completely different way than their modern counterparts. Physical products were in the center of most businesses and digital technology companies were far from even being launched. The core properties are still implementable to any growth strategy, which makes the matrix a great basis framework for an analysis of modern companies.

Ansoff matrix is a 2x2 grid with 2 axes called y-axis called Product and x-axis called Market. Strategies are named according to their positioning in Table 1.

PRODUCT	Market Penetration <i>Low risk</i>	Product Development <i>Medium risk</i>
	Market Development <i>Medium risk</i>	Product Diversification <i>High risk</i>
	MARKET	

Table 1 / Ansoff Matrix with risk indicators / created by me

After the literature review, it seems like the Ansoff Matrix has not been publicly used to analyze strategies of MALL applications before. It has been used while studying the growth strategies of restaurant chain Mc Donald's (Loredana, 2017), real-estate giant Evergrande (Yin, 2016) or beverage manufacturer Coca-Cola (Patra, 2020).

3.2 Growth strategies

Market Penetration

In terms of diversification strategy's riskiness, Ansoff Matrix notes Market Penetration as the safest choice of the 4 options. In a market penetration strategy, a company would launch strategic initiatives to increase sales in an existing market. These efforts could be, e.g., increased marketing or distribution efforts, slight improvements in current products or even acquiring rival companies. The low riskiness of this strategy stems from knowledge of the current market and current product.

According to Patra (2020) market penetration can be seen as a clear route, where the product is first launched with a lower price to improve sales and after a while slightly improved to further increase penetration. Patra adds that penetrating the current market is the least risky option, but as growth eventually slows down due to market saturation, this strategy will need to be accompanied by other variants of growth strategies. Market penetration can be measured by dividing the number of customer purchases on one product with the number of total products purchased from any supplier.

Market Development

In a Market Development strategy, you are increasing the size of your operating market area and/or switching resources from an older area to newer ones. The core product or service will stay relatively same but will often need slight adjustments to be serviceable to customers in a completely new market. In the case of mobile applications, these changes could include translating the service to a new language and applying legal terms of service to fit in with the local legislation. Market Development is ranked medium in terms of riskiness, as the same products are now facing competition in a new market. Increasing market size also increases monetary risk more than penetration efforts to the current one. Market Development can be measured by calculating the growth rate of revenues in new markets.

Product Development

Product Development happens when new products are launched to an existing market. This can be done by developing something new from scratch or by purchasing manufacturing or distribution rights for a product. In terms of risk, Product Development ranks similarly to

Market Development. You are targeting the same customers, but with a new product that has uncertain demand at the start.

Product Diversification

In a diversification strategy a company looks to enter a new market with new products. It often requires the company to develop new organizational structures and skills, which makes it the riskiest growth strategy compared when comparing to the other 3. Product diversification can be separated into Related and Concentric Diversification. In Related Diversification, the new product is related to the previous ones in some way. This could e.g., mean that an application company is launching a second application which has new target customers but has functionality and a business model like their previous apps. In Concentric Diversification the new product differs largely from the previous ones.

Critique and usage of the matrix

Before the selection of growth strategies, Ansoff suggests that instead of focusing on the outside factors affecting diversification, you should perform internal evaluation on what is really needed. First, you should select the target market, then the opportunities within these industries and evaluate them. Ansoff also reminds that companies would - and most likely should - follow more than one of these 4 strategies concurrently to maintain competitiveness among their rivals.

Even though the matrix is praised, it is worth noting that just as many other theoretical frameworks, it should be treated as a canvas for decision making which should not take into consideration all possible outcomes and external factors. It has received critique from e.g., Dawes (2018), who called that the built-in assumptions defining markets and products *new*, can create flawed outcomes from the perceptions that are drawn from the table. Ansoff has also vaguely claimed that all matrix categories are vital for a company to maintain their competitive edge in the industry, but Hussain *et al.*, (2013) studied the impact these 4 strategies have on growth of fast food companies and found that diversification strategy should be completely avoided because instead of supporting growth, it would actually reduce it.

4 Research method

This chapter presents an overview and reasoning behind the selection of the case companies of this study. Afterwards the data gathering method is explained in detail by providing practical examples of search phrases and reporting.

4.1 Case company selection

This research is conducted on 4 language application developers to have a large enough representation for an effective multiple case study (Stake, 2006, p.50).

The case companies were selected using the following criteria:

- the application needs to be relatively large (Top 10 in revenue),
- it can not be too new (under 5 years),
- and it has enough publicly available information about it.

The selected companies for the analysis were **Babbel**, **Busuu**, **Duolingo** and **Mondly**.

As seen in figure 2 below, they are ranked in the top 10 on 1st, 2nd, 6th, and 7th place in terms of revenue, which creates a good representation on both ends of the top 10. According to Sensor Tower's report of European language application users, Babbel, Busuu and Duolingo are all famous in different age groups: Babbel is the favorite of users aged over 45, Busuu is the favorite of users under 25 and Duolingo with users between 20-34 years old. Mondly is in the top 5 in all age categories but is not a favorite in any of them. (Scacchi, 2022)

Babbel was launched in 2008 and has only 14 languages in their selection which is significantly less when compared to Duolingo. Babbel has selected a unique approach compared to its rivals. They are similarly offering an application for self-practice, but they also have an alternative option available of selecting live language tutoring. They teased that they would go public in 2021 but eventually decided against it.

Busuu was launched in 2008 similarly to Babbel and is currently offering 14 languages. Busuu has risen in popularity due to its unique approach of allowing users to teach each other. This has proven a valuable way of outsourcing a service to your customers without even having to pay them. Both parties get value, as you can match up a Finnish and a Spanish native together so they both can teach the native way of speaking to the other one.

Duolingo was launched in 2013 and is currently offering up to 43 language courses. Duolingo has chosen to not include live tutoring to their services at all and is purely focusing on the autonomous side of learning. Duolingo is the most famous language application as you could they were the ones to really “make it” in the application space with a MALL application.

Mondly was launched in 2014 and is currently offering up to 41 languages. Mondly has created a highly gamified language application like Duolingo’s, but the specialty is the approach of implementing language learning to other devices and digitally challenging settings such as Virtual Reality and Augmented Reality.

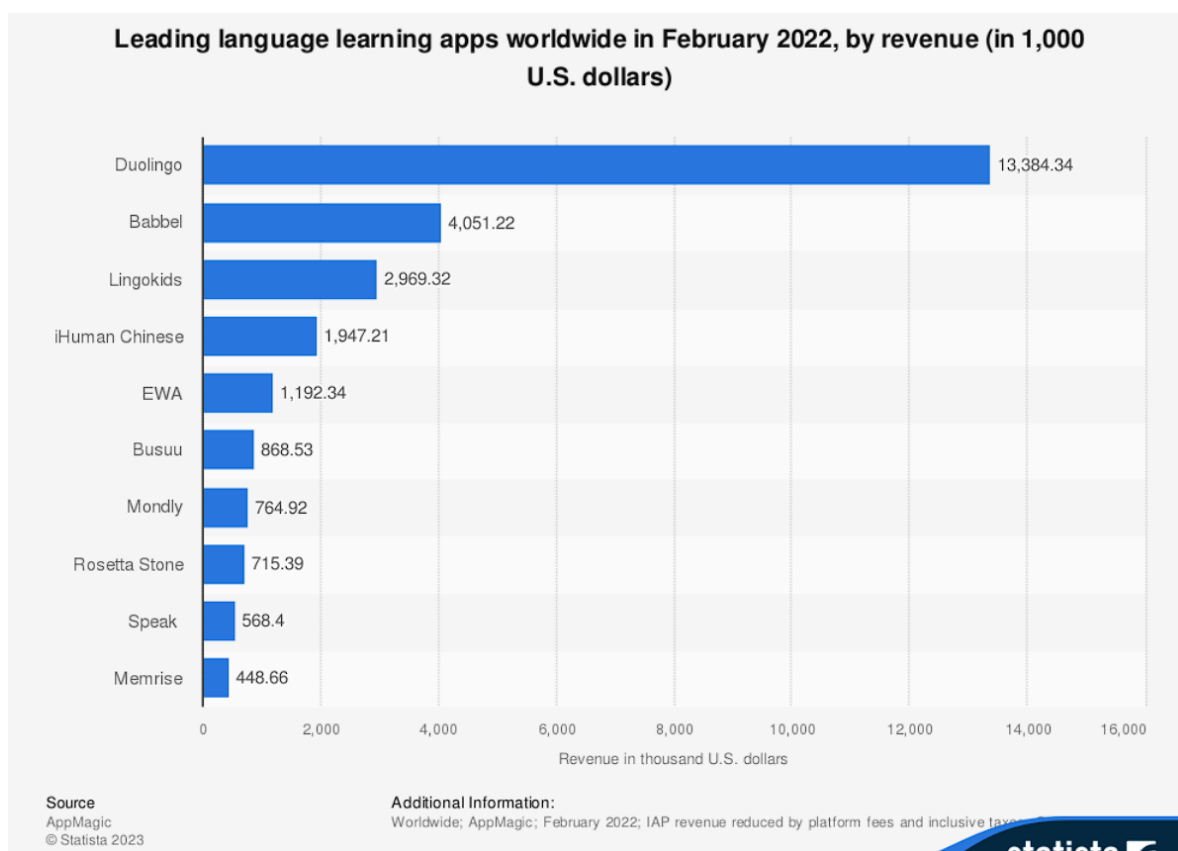


Figure 2 / Leading language learning apps worldwide in February 2022 (Statista, 2023)

4.2 Data gathering

Most of the data for this research was gathered by searching with different keyword pairs in Google Search. The keywords used in searches were selected according to Ansoff Matrix's strategic directions: When e.g., investigating Duolingo's Market Penetration strategies, the goal was to find out if there were any sources stating that they had e.g., acquired a rival company or made slight improvements in their product, as these are examples of a Market Penetration strategy. In the first example, I would pair "Duolingo" with "acquires a competitor" or "business acquisition". In the second one, I would investigate improvements through implemented features with search phrases such as "Duolingo" + "launches a new feature." When I found news stating that e.g., Duolingo launched feature X in 2015, I would save the feature name, implementation date, and source for this information.

According to Stake (2006, p.5), it is natural for research methods to adapt to new information while conducting a qualitative study. As the data gathering progressed and more precise data was found on the case companies, I would start using my findings as complementary keywords. If I e.g., found out that Duolingo launched their offline mode in 2013, I would run searches on all the other case companies with "Company name" + "Offline mode launch". This procedure proved to be extremely valuable to speed up the process of finding comparable data.

There were some data points – luckily only a handful, that could not be validated through Google searches. This issue was fixed by using a website called Archive.org that allows you to go back in time and visit previous versions of webpages. When I e.g., could not find information on when the Mondly B2B version (Mondly Works) was launched, I scanned through the previous versions of their homepage and found that it was missing before a certain date. This way I could determine that it had not been launched before this date as it is not presented on their website.

5 Features analysis

This chapter summarizes all the features that the case companies have implemented during their existence. Explanations for the features are also presented to showcase their use in the context of MALL applications. Time implementations are highlighted in chapter 5.2.

5.1 Availability

In the table below is a summarization of features according to case company. The number of languages offered is also presented. There are no big differences in the number of features, but we can recognize certain highlighted directions companies have chosen. Duolingo Duolingo and Mondly have a significantly higher number of languages and a few extra features, so they are clearly focusing on creating a large offering within their service. Babbel and Busuu are focusing on a different path by offering less features and languages but choosing to offer live tutoring instead. Duolingo and Mondly are opting for a more autonomous learning experience without human interaction.

All the companies are offering B2B, Certificates, Offline Mode, and Speech recognition. It is worth noting that none of the companies implemented these at the start of their journey, but they can be claimed as “mandatory features” as every one of them have had them implemented later on.

Features	Babbel	Busuu	Duolingo	Mondly	Total
Affiliate program	✓	✓	✗	✓	3
AI Tutoring	✗	✗	✓	✗	1
Augmented reality	✗	✗	✗	✓	1
B2B	✓	✓	✓	✓	4
Certificates	✓	✓	✓	✓	4
Games	✓	✗	✗	✗	1
Hands-free	✓	✗	✓	✓	3
Kids version	✗	✗	✓	✓	2
Live tutoring	✓	✓	✗	✗	1
Offline mode	✓	✓	✓	✓	4
School version	✗	✓	✓	✗	2
Speech recognition	✓	✓	✓	✓	4
Virtual reality	✗	✓	✗	✓	2
Voice chatbot	✗	✗	✓	✓	2
No. of features	8	7	9	10	
No. of languages	14	14	43	41	

Table 2 / Availability and number of features and languages implemented by case companies

Affiliate program

An affiliate is a person who gets rewarded for purchases that customers are making due to their influence. The most common way of running an affiliate program is to give popular content creators discount codes that they can distribute to their fanbase and therefore to potential customers.

AI Tutoring

AI Tutoring refers to tutoring that is done by Artificial Intelligence powered algorithms instead of human instructors. To current knowledge, Duolingo is the only application that is offering this with their new premium service Duolingo Max.

Augmented Reality (AR)

Augmented Reality takes video content from the users' camera and inserts graphic objects to the surfaces the camera recognizes. It combines the real world with the digital world, and the MALL application user can practice speaking while watching a visual representation of the digital person they are interacting with.

B2B

B2B comes from Business-to-Business. In the context of MALL applications this can mean offering the employees of a B2B customer the normal version of the application with a discount code. B2B customers can also be presented with an option of a tailored version of the application to suit their industry specific needs. For example, hotels can offer their employees an application version that contains customer service situations within a hotel setting.

Certificates

Language certificates can be used to present the achievements of learning a language. Customers can find these especially helpful when applying for a job or to an educational facility.

Games

Games refer to MALL applications that have implemented traditional high tempo video games to their portfolio instead of slower educational content focused gameplay where you can take your time while creating an answer.

Hands-free

Hands-free mode allows the user to interact with the application completely without touching it. It allows users to switch complete, pause and switch lessons by only using their voice.

Kids version

Simplified version of the language application that is created for underage users.

Live tutoring

In live tutoring, the user is being taught a language live with instant feedback. These sessions can be done either as a class version or as solo sessions with the teacher.

School version

The school version allows students to participate in lessons created and surveilled within their educational facility. This differs from the previously mentioned category Live Tutoring because it is created for schools where teachers can utilize the functions within the applications and monitor the progress of their students.

Virtual Reality (VR)

Virtual Reality can be accessed by wearing digital goggles that create an immersive experience for the user, where they can interact with digital characters in a digital world.

5.2 Time of implementation

Table 4 below showcases the years in which the case companies have chosen to launch certain features. Babbel was first 5 times, Busuu 2, Duo 4 and Mondly 5. From this data we can conclude that there are no significant frontrunners in terms of implementing the features. The case companies seem to be acting in isolation of the others, as we can see by the variation in the implementation years.

Some of the most interesting findings from this table are the implementations that are done far later than the others. It has taken Mondly for example 12 years to implement speech recognition and offline mode to their application. Even though it was claimed in the previous chapter that these features seem like arbitrary ones as everyone has implemented them, it seems like you can succeed well even without them for most of your journey.

Features	Babbel	Busuu	Duolingo	Mondly
Affiliate program	2018	+2	×	2018
AI Tutoring	×	×	2023	×
Augmented reality	×	×	×	2018
B2B	2016	2016	+6	+2
Certificates	+2	2015	+1	+5
Games	2021	×	×	×
Hands-free	+6	×	2014	+7
Kids version	×	×	+3	2017
Live tutoring	+1	2021	×	×
Offline	+3	+3	2010	+12
School version	×	+1	2015	×
Speech recognition	2010	+6	+3	+12
Virtual reality	×	+1	×	2016
Voice chatbot	×	×	+7	2016

Table 3. Differences in years of implementation

6 Strategic analysis

6.1 Babbel

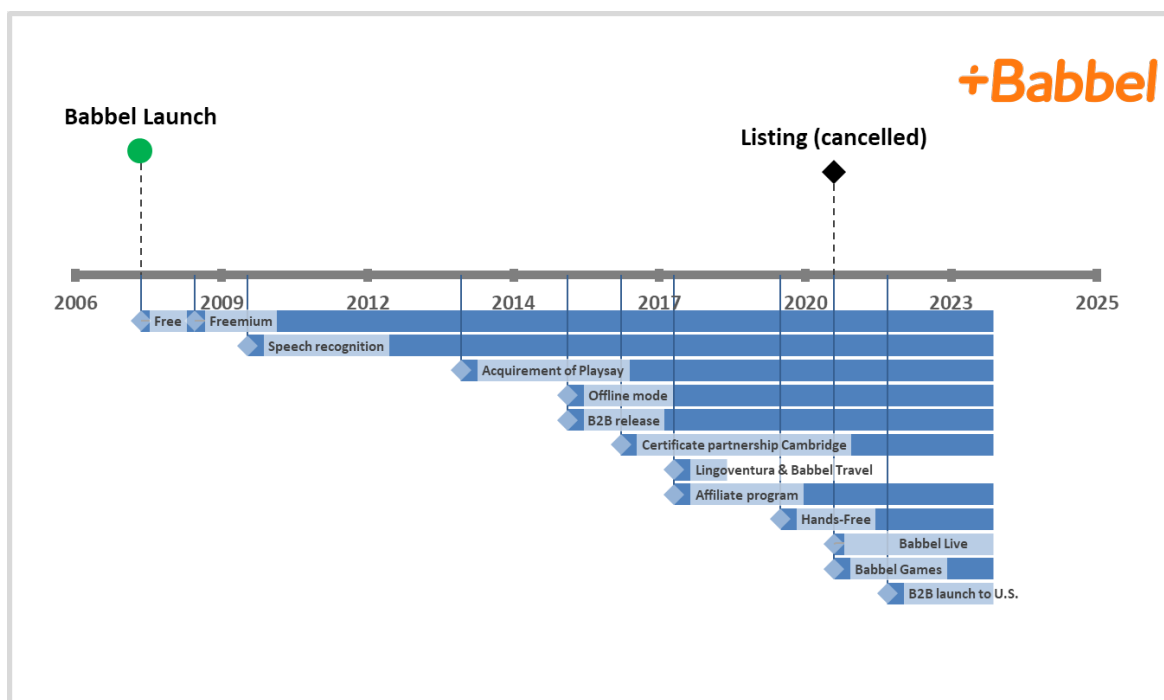


Figure 3 / Timeline of Babbel's strategic initiatives

Market Penetration

Babbel launched as a freemium application in 2008 but quickly decided against it and went ahead with the premium strategy. They had built a half a million user-base in their first year who could no longer keep using the application free of charge. Currently you are only allowed to test the first lesson of each language for free and to continue you need to start the premium subscription. Their managing director of the time Markus Witte did not clarify the decision more than phrasing than “freemium does not work for us”. They have an article on their website to explain why they went ahead with this decision and what are the downsides of operating a freemium business. Firstly, they selected against including advertisements in the application to not disturb the learning experience. Secondly, they have affirmed that due to the increase in revenue from premium payments user data does not have to be sold to third parties.

Product development

Babbel took gamification to another level by launching *Babbel Games* in 2021. Language applications usually use gamification to enhance the playing experience, but Babbel Games is - just as the name suggests, an actual game that has language learning as a side

effect of it. Instead of solving language related problems such as flash cards, you are in the pressure situation of a normal video game. An example of Babel Games is Word Trax where you need to spell a word before a train runs out of its tracks or you will lose the game. This is clearly targeting the younger customer segments who thrive for high intensity action instead of less exciting solving of language problems.

Babbel has had course completion certificates in place almost from the beginning of their launch. Before the certificates are created in collaboration with a respected academic institution, such as Cambridge University, they lack credibility to be used in most official settings, such as job applications for example. Babbel tackled this issue by launching language tests in a partnership deal with Cambridge University in 2017. The official certificates offered from these tests add value to the existing core product and can work as a great tool to promote the app to new customers.

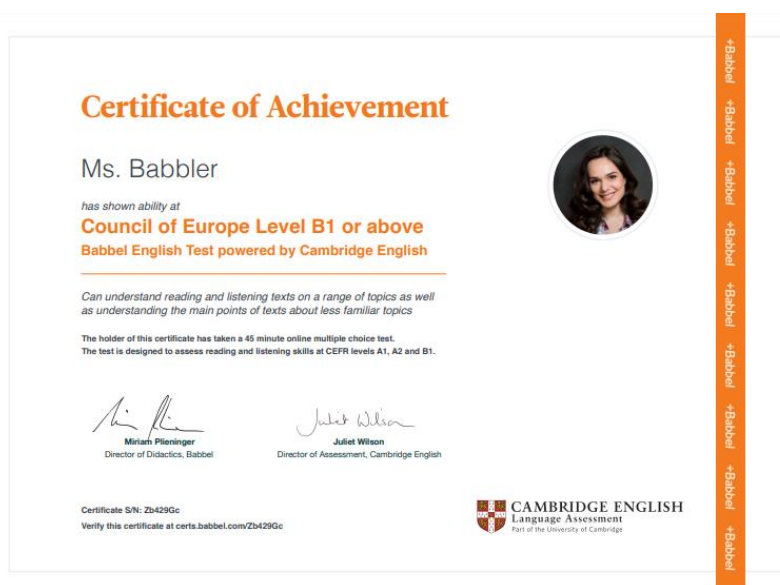


Figure 4 / Babbel English test certificate with Cambridge University

One of the largest initiatives by Babbel was launching Babbel Live. It brings the traditional way of teaching into online environments where qualified teachers are now teaching students in real-time despite their location. These lessons only allow for six students per class, which makes up for a more valuable learning experience with more attention from the teacher.

Market development

In 2016 Babbel decided to launch their B2B service, which allows companies to train their staff’s language knowledge with custom made industry specific vocabulary lessons. This increases their market size as corporate customers bring in a lot of extra revenue. After several years of corporate customers Babbel decided to expand their B2B offerings to the U.S. in 2022. To better manage the risk of entering a new market, they acquired a promising startup company called Playsay who had been operating within the U.S. market for a couple of years. According to their CEO Markus Witte: *This acquisition represents a continuation of our strategy to offer a complete range of mobile solutions to language learning and the possibility to leverage market share in the US.*

Product diversification

Babbel began to pursue completely new target customers by acquiring Lingoventura in 2018. Lingoventura used to be a global traveling platform that offers an option for language schools to connect with native speakers from across the world. This venture was praised in multiple media outlets as a revolutionizing way of combining language learning and travel. In the end it turned out to be a failure as Babbel Travel never came to fruition and never actually got launched. Even though you could find a logo created for it.

<p>Market Penetration Freemium Speech recognition Offline mode Hands-Free Affiliate program</p>	<p>Product Development Babbel Live Babbel Games Certificate partnership Cambridge</p>
<p>Product Diversification Lingoventura & Babbel Travel B2B release</p>	<p>Market Development B2B launch to U.S. Acquirement of Playsay</p>

Table 3 / Ansoff Matrix of Babbel's strategies

6.2 Busuu

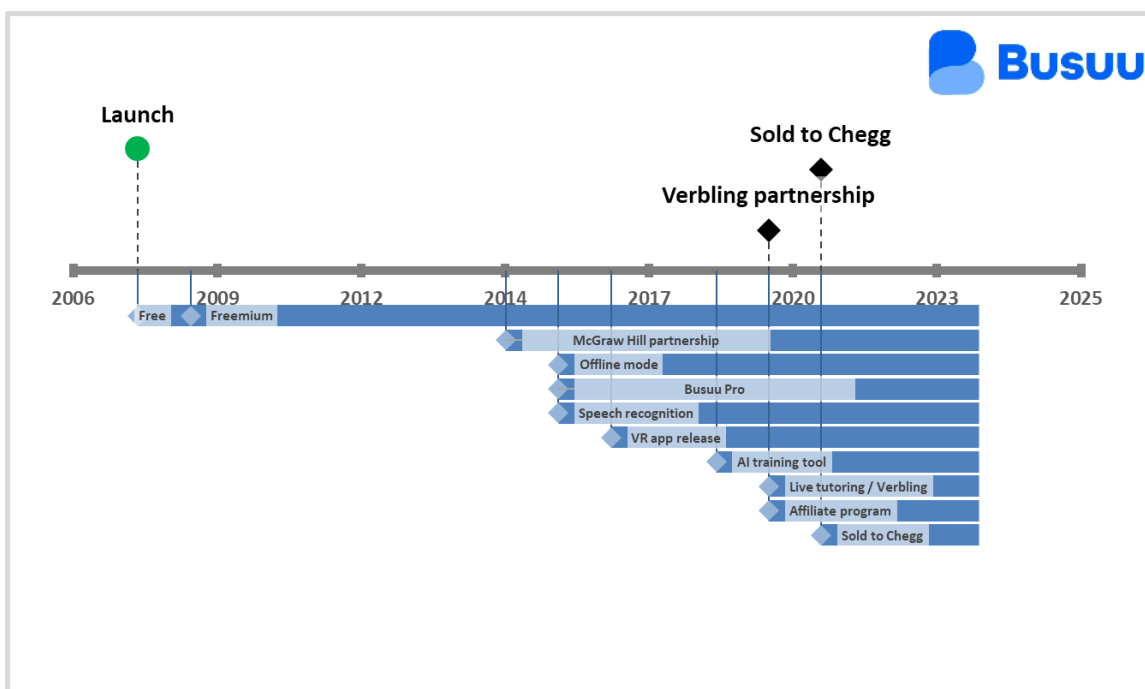


Figure 5 / Timeline of Busuu's strategic initiatives

Market Penetration

Busuu's growth strategies to penetrate the market have included freemium pricing strategy from the beginning. The free version attracts users on the platform who might eventually start their subscription and become monetized premium customers. Busuu has not seen lots of notable feature additions to their core application except for offline mode that came in 2016.

Product development

Where Busuu really stands out from its competitors is their live tutoring service Busuu Live. Busuu made a strategic move by acquiring live video tutoring company Verbling in 2020, which allowed them to launch their live tutoring app through Verbling's software. Busuu Live offers you an option to attend language classes with a small group of learners. Business accounts also have the option for one-to-one tutoring. Busuu Live is now operating as a two-sided market as they are actively recruiting teachers to teach their customers. These teachers are vetted through Verbling to hold them to certain pedagogic standards to meet the needed qualities for the service.

Busuu took a step further in their product development when they launched Virtual Reality (VR) called The Hacienda in 2017. The application was soon declared a failure as they received low ratings and negative feedback on its the unfinished state it was released in. The application has not received any updates since it's release and Busuu never released anything related to VR afterwards.

Market development

Busuu looked to expand their market further in 2021 after they agreed to sell their company to education technology giant Chegg. This took the distribution rights away from McGraw Hill who had acquired them in the previous partnership deal.

Product diversification

As mentioned above, Busuu partnered first with learning science company McGraw Hill in 2015 to improve their core product, start offering language certificates and to begin their grasp on the B2B market. Citing their CEO Bernhard Niesner: *“For Busuu, this alliance allows us to quickly grow our market penetration with a trusted name such as McGraw Hill. We are especially excited to explore adding McGraw’s adaptive capabilities to our platform and believe this will revolutionise the way people learn languages.”* After this partnership improved their distribution channels, Busuu launched Busuu Pro in 2016, which was created for corporate customers, including schools and universities.

<p>Market Penetration</p> <ul style="list-style-type: none"> Freemium Offline mode Ai training tool Speech recognition Affiliate program 	<p>Product Development</p> <ul style="list-style-type: none"> Live tutoring Language certificates VR app release
<p>Product Diversification</p> <ul style="list-style-type: none"> McGraw Hill partnership Busuu Pro (School & B2B) 	<p>Market Development</p> <ul style="list-style-type: none"> Sold to Chegg

Table 4 /Ansoff Matrix of Busuu's strategies

6.3 Duolingo

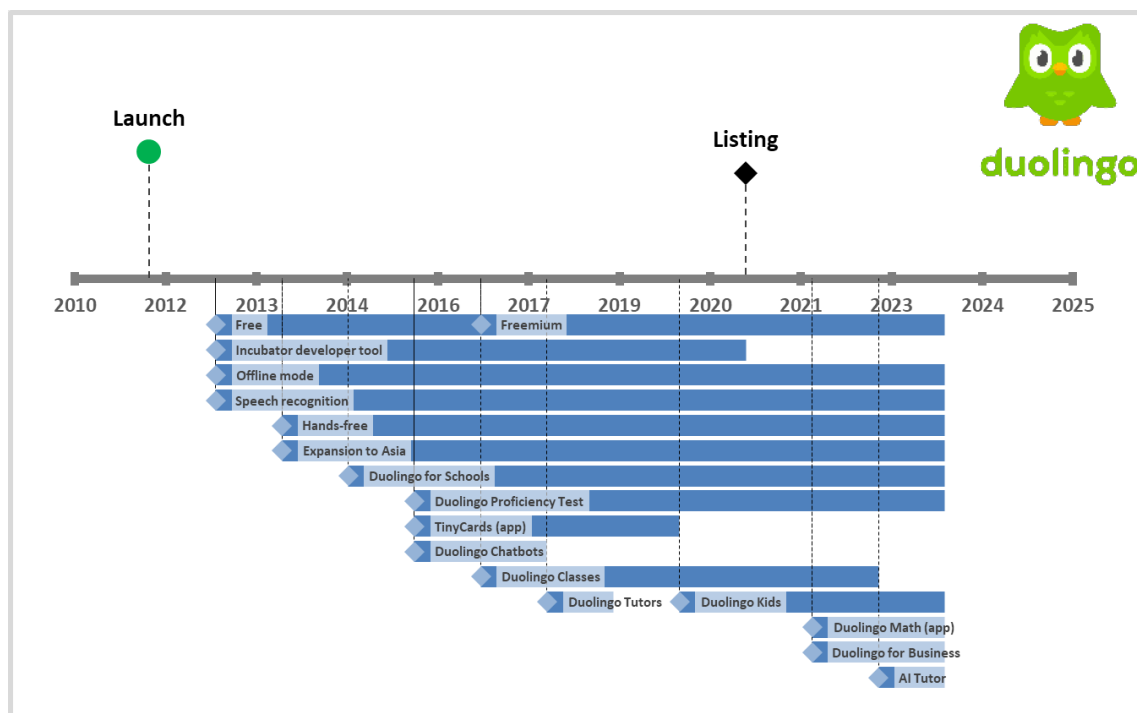


Figure 6 / Timeline of Duolingo's strategic initiatives

Market Penetration

Duolingo has had many market penetration initiatives. First of the many was a developer tool called incubator that they launched in 2013. At start, this tool allowed users to check for upcoming new language courses. Quickly Duolingo realized that they can use the feedback of the most passionate users to their advantage, and they allowed users to chime in on the development of the new courses. This technique of outsourcing your work against payment or purely voluntarily is called *crowdsourcing*. It has been growing in popularity among companies recently. (Grewal-Carr and Bates, 2016) Before Duolingo's listing in 2020, they saw that the Incubator posed two issues. Firstly, they did not want to be publicly listed and to profit from voluntary work. Secondly, they moved to a standardized way of developing language courses, which this user-based development did not fit into.

Shortly after their launch, Duolingo also launched an offline version of their application in 2013. This was and is only available for premium users.

Product development

Just as with the ridiculous number of gamified features, Duolingo has tried to build a product that contains everything you could ask for. Duolingo has launched a boat load of side applications in addition to their core application. Not all the additions were here to stay though, as Duolingo has realized on multiple occasions.

In 2016 they launched a new application called TinyCards, which was basically a dumbed down way of teaching languages through so-called flash card technique, where the player is shown cards and must memorize the meanings of the words. TinyCards was available until 2020 when it was finally shut down due to “limited money and resources”. In 2016 they also launched a second unsuccessful feature as chat bots were added to their core application. This feature lasted only 2 years and was removed in 2018.

Duolingo launched Tutors feature as an additional service into their premium Duolingo plus, but quickly stopped their support on the feature in November 2020 only a year after its launch. In 2017, Duolingo launched *Duolingo Classes* but decided to quit the service in January 2023 without an explanation.

Duolingo’s latest addition just happened in 2023 as they launched an AI Tutoring service called Duolingo Max, which is powered by the currently trending GPT-4 neural network that combines data from different sources and provides solutions to submitted problems in a rapid manner. Duolingo Max is a slightly more expensive alternative for the cheaper premium service Duolingo Plus that is still available. Max offers 2 types of new features: Explain My Answer can be used to ask for precise feedback and suggestions to improve their learning. Roleplay allows them to practice discussions in different settings with AI powered chatting partners.

Market development

In 2019 the long wait ended as Duolingo launched in China. They started partnering with Key Opinion Leaders (KOL) or so-called *influencers* to penetrate the market. Approximately after 2 years of their move they had to put their operations to a halt, as the local regulators pressured them out of the app stores. After a year and with a fine-tuned product they were allowed to re-enter the Chinese market in 2022.

Product diversification

Duolingo launched Duolingo Schools as early as in 2015 to put their foot between the door of education markets. Duolingo proficiency test was introduced in 2016 to offer its users an official way of presenting their language knowledge. Due to the massive success story of their language application, Duolingo decided to test their potential in another educational sector and launched a mathematics application called Duolingo Math in 2022.

A surprisingly late addition to Duolingo’s toolkit happened in 2022, as they finally released a B2B version called Duolingo Business. Their focus has really been on the consumer market for a long time.

<p>Market Penetration Incubator developer tool Offline mode Duolingo Chatbots Freemium AI Tutor Speech recognition</p>	<p>Product Development TinyCards (app) Duolingo Tutors Duolingo Classes</p>
<p>Product Diversification Duolingo for Schools Duolingo Proficiency Test Duolingo Math (app) Duolingo for Business</p>	<p>Market Development Expansion to Asia</p>

Table 5/Ansoff Matrix of Duolingo's strategies

6.4 Mondly

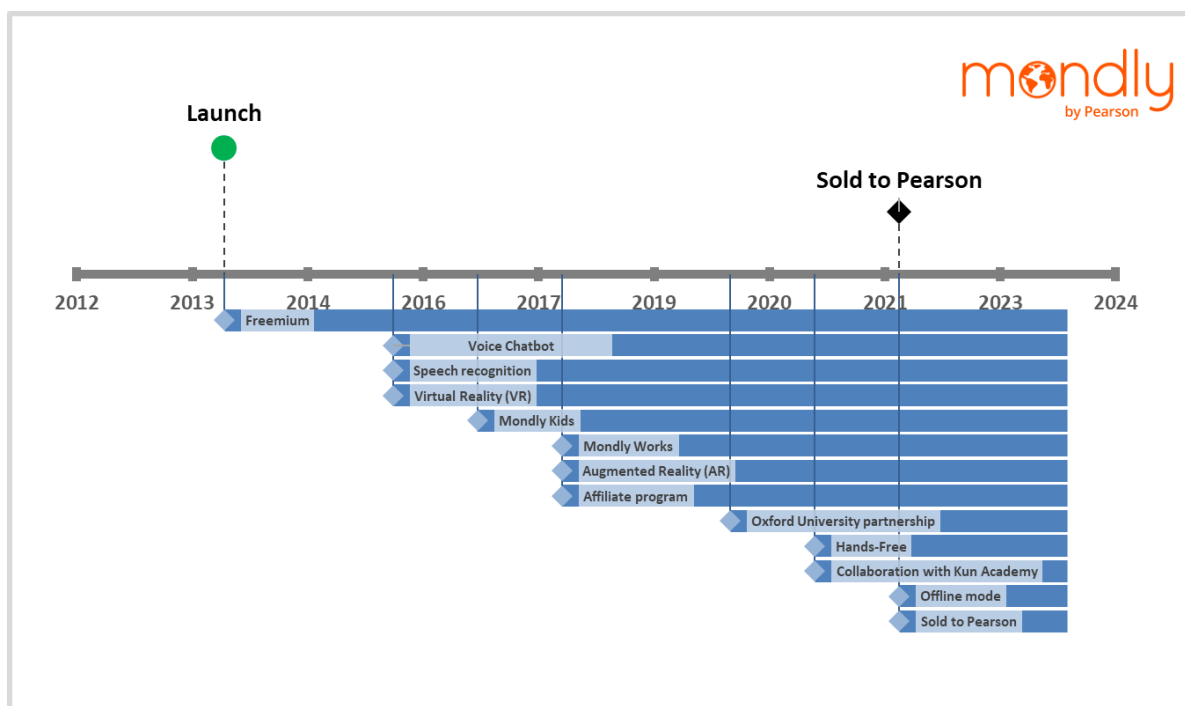


Figure 7 / Timeline of Mondly's strategic initiatives

Market Penetration

Mondly's pricing strategy has been freemium since its launch in 2014. They added the industry's first voice-controlled chat bot to their application in 2016. One of Mondly's downsides was for a long time the lack of offline mode until 2022, even though their 3 rivals had it available within a couple of years from their launch. When you go offline you are losing some real-time data coming from the active users, which might be the reason Mondly opted to not launch offline mode before this.

Product development

Product development is Mondly's specialty compared to the other MALL applications. They launched a Virtual Reality (VR) language learning game on the computer game market Steam. They also launched Augmented Reality (AR) game where the player makes their personal surroundings a digital canvas with their camera. On top of the surroundings are added virtual teachers who are voice controlled chatbots that respond with pre-recorded human voice lines. Mondly's VR and AR initiatives showcase that their focus is to offer as immersive language learning experience as digitally possible.

Market development

Mondly chose to launch their first affiliate collaboration in 2018 to boost sales numbers through subscription sales coming through an affiliates purchase link. In 2021 Mondly wanted to join the group of applications that were offering language learning certificates and decided to collaborate with Kun Academy. Kun Academy is an online learning platform that teaches varying skills and especially established a large customer base on the Arabic markets. Mondly was added to their list of offered services to enlarge Mondly's market area toward the world's Arabic speaking population.

In 2022 Mondly was acquired by one of the world's leading educational organizations Pearson. This move gives them access to multiple strategic advantages such as scaling up their sales through bundle deals created with other products of Pearson.

Product diversification

In 2017 Mondly launched Mondly Kids which is basically a copy of their core application with some slight adjustments to suit the young players better. After a year, they further expanded their selection towards new markets as the B2B version Mondly Works was released.

<p>Market Penetration</p> <ul style="list-style-type: none"> Freemium Voice Chatbot Offline mode Hands-Free Speech recognition 	<p>Product Development</p> <ul style="list-style-type: none"> Virtual Reality (VR) Augmented Reality (AR) Oxford University partnership
<p>Product Diversification</p> <ul style="list-style-type: none"> Mondly Kids Mondly Works 	<p>Market Development</p> <ul style="list-style-type: none"> Sold to Pearson Collaboration with Kun Academy Affiliate program

Table 6 / Ansoff Matrix of Mondly's strategies

7 Meta-analysis

This part of the thesis will explain the most relevant findings and synergies that are found when comparing the strategic initiatives of the case companies.

7.1 Ansoff matrix MALL framework

Below a continuation for the Ansoff Matrix is presented, by adding the recognized strategies of MALL case companies to their respective area in the matrix.

Existing markets	Market Development Business acquisitions Entering new markets Partnerships Selling to a company	Product Development Language certificates Live tutoring Complementary apps VR & AR
	Market Penetration Affiliates Feature additions Freemium	Product Diversification B2B New apps Kids / Schools version
New Markets	Existing products	New Products

Table 7 / Ansoff Matrix with recognized MALL initiatives

Market Penetration

We can see that Market penetration was increased by launching a freemium version, adding new features and by increasing sales by using affiliate partners.

Product Development

Product development included language certificates, live tutoring, complementary apps, virtual reality, and augmented reality applications.

Market Development

Market development was mostly done through partnerships with companies. Almost all the endeavors to reach a new market took place through a partnership with a company that was already familiar with the new market. Business Acquisitions played a part in this as Busuu was sold to Chegg and Mondly to Pearson, which gave a boost to their sales

through their new owners’ sales channels. Only one purchase was made by Babbel when they acquired the startup PlaySay before entering the U.S. market.

Product Diversification

Case companies pursued 3 main avenues regarding product diversification: Entering B2B markets, creating completely new applications and by launching a version for kids and schools.

7.2 Time of implementation

Below in figure 8, we see a timely presentation of the strategic initiatives that were done after the launch of these applications.

Market Penetration initiatives are leading the way in the early stages after the launch. Market penetration is by far the most used strategical tool with 22 recognized initiatives.

Product Development efforts can be seen throughout the timeline, and they place second with 13 initiatives.

Market Development initiatives that are mostly seen in the later stages of the timeline closer to 10-year mark after launching with a total of 9 initiatives.

Product Diversification is the riskiest and least used option as expected. There are only 7 recognized initiatives, which can be found in the later stages of the timeline as well.

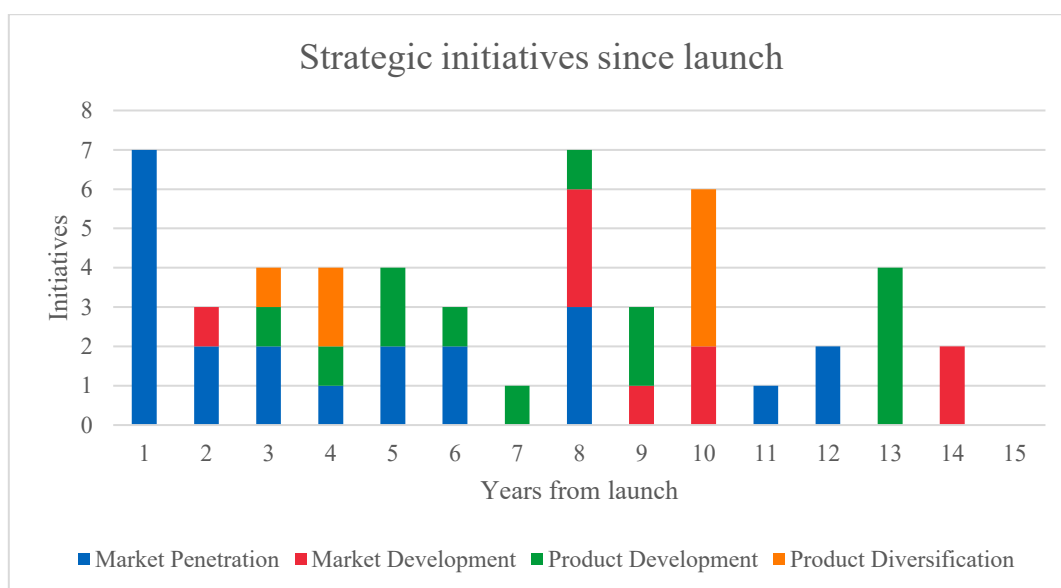


Figure 8 / Strategic initiatives of case companies since launch

7.3 Freemium

All the applications have opted for a freemium version almost instantly after their launch. This shows that the free aspect of the application must be available to draw people in and try the application. The pricing options of these companies vary from one-time payments to life-time subscriptions. The availability of content in the freemium versions can also vary drastically, where some companies offer only a very limited chance of trying out the application such as Babbel by offering only one basic course before requiring the users to pay for a subscription to continue to the next stages of learning a language. On the opposite side is Duolingo, which does also offer a limited amount of gameplay, but they allow the users to play as long as they are performing: the more you make mistakes, the more you lose “in-game hearts” and as they run out, you can no longer play, unless you buy more of them.

7.4 B2C before B2B

All the 4 apps launched their applications by targeting consumers first. It took Duolingo, Babbel and Busuu over 8 years to launch their B2B version of the application. This highlights the fact that there is plenty of room for growth within the consumer side when it takes this long for the most successful apps to start saturating and to eventually reach out towards the B2B customers.

Before their B2B launch, the smaller case companies Busuu and Mondly chose to partner with a company that had knowledge of the new corporate market area they were heading to. This might be the reason it took so long for some of the companies before they joined the B2B market. In addition to saturating the demand on the consumer side, you need to establish yourself first in the market before you have the expertise and resources to engage in a new market. Also, before you can enter into an agreement with partner companies, you need to prove your worth to them, as potential partners are most likely not interested in partnering with an unknown new language application.

7.5 Value from language certificates

All the apps are offering language certificates besides their application. Language certificates can draw potential users in who feel like they need to practice first for the certificate exam. It is important to note that the only officially recognized certificate out of

these 4 is the one Duolingo is offering. Over 4000 institutions have recognized it around the world. What is interesting is that the other apps have created their certificates after partnering with different education institutions: Babbel with Cambridge University, Busuu with McGraw Hill and Mondly with Oxford University, where as Duolingo, as the only officially recognized certificate, has created their certificates without an official partnership with any universities.

8 Discussion

This chapter will discuss the findings of the study and try to position them according to previous research. The difficulty of this task comes with the fact that there are no significant earlier studies done on the topic, especially in a similar manner, where a case study is conducted on multiple companies simultaneously. Some discussion around the subject can still be drawn from previous research.

8.1 Support from previous research

Returning to the findings of Sakalauskė and Leonavičiūtė (2022) in table 2, we see some resources and capabilities of Duolingo that also came up in our multiple case study. Language certificates and School versions are called valuable and rare assets that create a temporary competitive advantage. Mirroring this to our findings, this seems to currently be the case: Duolingo is the only company with an officially reputable certificate. All the other case companies have also launched them, but they are far behind in terms of recognition. Lack of recognition raises the question whether the advantage Duolingo has built is *temporary* and how long will this *temporary* period last.

As Govender and Arnedo-Moreno (2020) found in their study, MALL companies have chosen different paths in the number of gamified features implemented. In this study we analyzed the other features that are not considered as gamified design and found that the total number of these features divides evenly with the case companies. From the division we can determine certain key paths the companies have chosen. Some have chosen to focus on improvements on the core applications autonomous learning side by implementing as many features as possible to support individual learning. Some have chosen to focus on the more traditional side of learning by focusing on the live tutoring and human interaction with their application. This proves the point that you can be successful in this space by following your own route, instead of having to mimic all the features from the other applications. It can even be argued that uniqueness is the cornerstone of success: all the successful applications are fairly different from one another by each of them having their own style of doing things.

8.2 No copying

The findings of this study indicate no clear timely correlations within the strategies among the case companies. Expectations before the results were that there could be copying of strategies or at least feature implementations, but the data shows that this is not the case. It is not necessary for a company to follow the others as long as they are staying competitive in the other aspects of the application.

8.3 No business acquisitions

There were no signs of buying out smaller players in the MALL market. I found this surprising, as you would expect that some of the newer companies could bring up some new technology that the larger players would want to buy for themselves. From this point of view, it seems like the competitive nature is not that fierce in the market. And reading between the lines: maybe this is proof that most of the application updates are not that hard to mimic. The top companies can live without implementing the features or then they can simply do it themselves. There seems to be no need to acquire competitors.

Even though Mondly and Busuu got sold in the later stage of their journey, this represents the fact that MALL companies do not seem to be that compelling for buyers even outside of the market. In the digital market there always looms a “threat” among companies, that Google or Microsoft might be acquiring a company with their endless funds available for purchases and implement it to their systems. Even though you might think that language markets represent an interesting and invest worthy endeavor, this has also not been the case with any major MALL applications. From this we could draw a similar conclusion that there is most likely not enough monetary potential in the market for the interest of the tech giants.

8.4 Framework fits the task at hand

We can establish that the four elements of the Ansoff matrix are represented in the timelines in an order that is expected: Market Penetration initiatives are mostly focused on the early phases of the company’s lifetime. These include feature additions that are natural in the early development phase. Companies are launching applications that are obviously not perfectly polished at the start. After a few years they start implementing features and

after these smaller updates, they can proceed to produce new side-products or applications and start offering these to new markets.

Findings indicate that each case company has multiple initiatives that can be positioned into different sections within the matrix. This is one of the most fascinating findings of this study. The goal was to present an overview of the strategic landscape that the companies are offering, and it is exactly the result that was received.

9 Conclusions

The research question was: *What are the competition strategies the case MALL applications are using and how do they compare to each other?*

Strategic analysis of these 4 applications shows that each of them has a unique style to try and penetrate the market. It is not just a race to who builds the best gamified self-directed language application, but more about the unique features that you offer in addition to the core application. The presented strategies showcase the countless opportunities that lie within this market. You can choose from so many different avenues to increase market share and product value.

Main competition strategies are related to adding certain important features to your application and then choosing and specializing in some unique avenue. Two popular routes were to create a more self-directed language learning experience through an application that has a well-designed digital interface and system with all types of features that requires less hassle around it from the developer. Others have chosen an avenue of including human interaction in the form of live teaching lessons and even included a way of creating a living as a teacher on the platform for some. This requires a completely different approach from the company, instead of investing huge amounts of money to the software side, where there are fewer moving parts such as humans involved in the learning situation.

As we saw in this study, applications are very different from each other. That is promising in terms of the industry as the competition will not be rising too high if all the companies are competing over slightly different types of customers with different types of needs.

9.1 Limitations

This analysis excludes a massive player in the MALL market called Cake. It is a new application that was launched in 2018 and is currently dominating the Asian market. It proved extremely difficult to gather information from their strategic actions, which is why it was not considered a valuable company to include in this comparison. Other excluded companies are the ones targeted at kids, such as Lingokids or Buddy.ai. They would not be as comparable with the other giants, as their targeted customer segment is only children, when Duolingo and Babbel for example are targeting customers from all age groups.

Due to the massive number of partnerships of e.g., Duolingo, this analysis also excludes partnerships and only focuses on business acquisitions that are directly related to the distribution or production of the application. Duolingo has for example partnered with a dozen different technology companies to enhance their algorithms, and even though you could bring them up to support this strategic analysis, it would be beyond the scope of this research.

Market Development is one of the core strategic directions in any strategic analysis. It is difficult to analyze the development of an applications market area, as applications can be used in almost any developed country, if the regulations allow it and the base languages suit the users. Mobile apps are continuously launching new base languages and there are very limited sources about these additions. Therefore, the additions of base languages were excluded from the study.

When investigating the use of strategies, it would be insightful to compare them next to the results they have created. The issue that arises from this – as presented in this study, is that organizations are very rarely following only a singular strategy. This would make results assumably rely too much on assumptions on how the simultaneous effectiveness of strategies works, which would be hard to show with grounded evidence. Therefore, the scope was focused on presenting the measures that have been taken, instead of the effects they have had.

9.2 Implications to theory

The created Ansoff Matrix framework can also be applied to different settings with other research practitioners in future research. This study can be used as the canvas to build up on something greater when there are timelier and humanly resources available. This study has by no means covered all the strategic opportunities of MALL applications. This is just a scratch on the surface, as there are multiple different unexplored avenues that could have been implemented within this study as explained in the previous chapter 9.1. Limitations.

Looking at the previous studies of Sakalauskė and Leonavičiūtė (2022) and Govender and Arnedo-Moreno, (2020), there lies an opportunity to combine all these valuable findings and use them as the base for interesting new research questions.

9.3 Implications to practice

The created framework can act as a toolkit for any company who is looking to mimic some of the strategies these successful MALL companies have chosen. A great example of a practical scenario would be if a new company was, e.g., pondering on the strategic decision of who should be targeting as their customer group; B2C or B2B customers? Looking at the findings of this study, you can determine that the most successful companies have not reached the B2B side of the market until they have had years of time to establish themselves in the industry. From this data, you could draw a conclusion of targeting B2C market first.

9.4 Future suggestions

The framework that was created could be used in future research to examine strategic routes other applications have chosen in the mobile markets. You could also bring up other comparable information such as revenue numbers on and compare them with the used strategies and by this create certain combinations of strategies that seem to net the highest expected value for a company.

This study analyzed the case companies from 4 angles that were taken from the matrix. One opportunity would be to focus purely on one of the growth strategies and therefore create a more in-depth analysis of it. As discussed in the previous section, some limitations had to be made, such as not taking the pricing decisions into consideration, even though they can play a big role in dictating customer decision making in the market.

In my opinion the best route to continue this topic would be to find out whether there is a possibility to reach out to any of the case companies mentioned or any other companies and ask if it would be possible to have a short interview with them to find out how they view the situation. This way you could make an “inside version” of this topic and compare the two together.

In addition to Ansoff’s matrix, I encourage you to try other strategic analysis metrics to see if they could bring more value to the topic. Ansoff’s Matrix can be valuable to create certain macro-level insights in certain industries, but it might not be the best option when evaluating competition in the newer industries such as mobile applications. It was also created during a time when globalization was not heavily on the rise as it is today, which might make the analysis on some of the growth strategies outdated.

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Appendix A: Strategy sources

Babbel

Freemium	https://techcrunch.com/2009/11/10/babbel-language-site-dumps-freemium-goes-subscription/
Speech recognition	https://techcrunch.com/2010/06/23/babbel-introduces-speech-recognition-to-aid-language-learning/
Acquirement of Playsay	https://techcrunch.com/2013/03/21/german-language-learning-startup-babbel-buys-disrupt-finalist-playsay-to-target-the-us-market/
Offline mode	https://www.engadget.com/2013-01-08-babbel-subscription-based-language-learning-program-ipad.html
B2B release	http://www.lt-innovate.org/sites/default/files/10.30%20Maren%20Pauli.pdf
Certificate partnership Cambridge	https://thepienews.com/news/cambridge-english-babbel-lowcost-test/
Lingoventura & Babbel Travel	https://www.babbel.com/press/en-us/releases/2018-11-30-babbel-moves-into-language-travel.html
Affiliate program	https://www.performcb.com/content-hub/babbel-affiliate-program-fbm88-5wtkn-p9y76/
Hands-Free	https://www.babbel.com/press/en-us/releases/2020-08-25-Babbel-Podcast.html
Babbel Live	https://www.pcworld.com/article/548115/babbel-launches-babbel-live-making-online-language-learning-come-to-life-2.html
Babbel Games	https://www.makeuseof.com/babbel-adds-live-classes-fun-games/
B2B launch to U.S.	https://www.babbel.com/press/en-us/releases/eng-1m-sub-sold-us-1

Table 7 / Babbel strategies

Busuu

Freemium	https://www.theguardian.com/small-business-network/2017/mar/07/busuu-babble-language-learning-startups-adapt-thrive
Freemium	https://blog.busuu.com/mcgraw-hill-education-acquires-equity-stake-in-busuu-global-mobile-language-learning-platform/
McGraw Hill partnership	https://blog.busuu.com/use-busuu-without-an-internet-connection-because-learning-never-stops/
Offline mode	https://www.mheducation.com/news-insights/press-releases/busuu-pro-launches-language-learning-solution-schools-universities-companies.html
Busuu Pro	https://blog.busuu.com/speech-recognition/
Speech recognition	https://tech.eu/2017/10/26/busuu-oculus/
VR app release	https://blog.busuu.com/busuu-launches-ai-powered-grammar-review/
AI training tool	https://blog.busuu.com/verbling-becomes-part-of-busuu/
Live tutoring / Verbling	https://web.archive.org/web/20201205150012/https://www.busuu.com/en/partners
Affiliate program	https://techcrunch.com/2021/11/29/student-media-giant-chegg-acquires-language-learning-startup-busuu-for-436m/
Sold to Chegg	https://www.theguardian.com/small-business-network/2017/mar/07/busuu-babble-language-learning-startups-adapt-thrive

Table 8 / Busuu strategies

Duolingo

Freemium	https://www.theverge.com/2017/4/21/15385734/duolingo-paid-subscription-adfree-offline-android
Incubator developer tool	https://duoplanet.com/what-happened-to-the-duolingo-incubator/
Offline mode	https://duolingo.fandom.com/wiki/Frequently_asked_questions/Mobile
Speech recognition	https://techcrunch.com/2013/03/14/duolingo-adds-offline-mode-and-speech-recognition-to-its-mobile-app/
Hands-free	http://duolingo-data.s3.amazonaws.com/s3/press-assets/Duolingo_GlassWear.pdf
Expansion to Asia	https://techcrunch.com/2014/04/24/duolingo-launches-in-asia-updates-its-ios-app/
Duolingo for Schools	https://techcrunch.com/2015/01/08/duolingo-launches-free-language-learning-platform-for-schools/
Duolingo Proficiency Test	https://blog.duolingo.com/tag/duolingo-english-test/
TinyCards (app)	https://duolingo.fandom.com/wiki/Tinycards
Duolingo Chatbots	https://duolingo.fandom.com/wiki/Duolingo_Wiki:Archive/Bots
Duolingo Classes	https://support.duolingo.com/hc/en-us/articles/360028362991-Duolingo-Classes-Announcement-FAQ
Duolingo Tutors	https://web.archive.org/web/2023000000000*/https://www.duolingo.com/business
Duolingo Kids	https://producthabits.com/duolingo-built-700-million-company-without-charging-users/
Duolingo Math (app)	https://blog.duolingo.com/duolingo-launches-math-app/
Duolingo for Business	https://www.bizjournals.com/pittsburgh/news/2022/07/08/duolingo-launches-business-pricing-plan.html
AI Tutor	https://techcrunch.com/2023/03/14/duolingo-launches-new-subscription-tier-with-access-to-ai-tutor-powered-by-gpt-4/

Table 9 / Duolingo strategies

Mondly

Freemium	Data for launch date not available
Voice Chatbot	https://www.zdnet.com/article/mondly-releases-language-learning-voice-chatbot/
Speech recognition	https://www.zdnet.com/article/mondly-releases-language-learning-voice-chatbot/
Virtual Reality (VR)	https://www.mondly.com/blog/mondly-launches-virtual-reality-learning-languages-powered-chatbots/
Mondly Kids	https://www.mondly.com/blog/mondly-launches-educational-language-app-for-kids/
Mondly Works	https://web.archive.org/web/20180518112706/https://www.mondly.com/
Augmented Reality (AR)	https://martechseries.com/predictive-ai/augmented-reality/mondly-launches-first-augmented-reality-experience-uses-speech-recognition-teach-languages/
Affiliate program	https://blog.2checkout.com/masters-of-affiliate-program-management-2018-winners/
Hands-Free	https://www.mondly.com/blog/mondly-hands-free/
Collaboration with Kun Academy	https://www.mondly.com/blog/mondly-collaboration-kun-academy/
Offline mode	https://outwittrade.com/mondly-review/
Sold to Pearson	https://plc.pearson.com/en-GB/news/pearson-acquires-leading-online-language-learning-platform
Oxford University partnership	https://global.oup.com/news-items/archive/mondly?cc=ro

Table 10 / Mondly strategies

Appendix B: Case company strategy summary

Market penetration

Babbel	Busuu	Duolingo	Mondly
Affiliate program	Affiliate program	AI Tutor	Affiliate program
Freemium	Ai training tool	Chatbots	Freemium
Hands-Free	Freemium	Freemium	Hands-Free
Offline mode	Offline mode	Developer tool	Offline mode
Speech recognition	Speech recognition	Offline mode	Speech recognition
		Speech recognition	Voice Chatbot

Table 11 / Summary of used market penetration strategies

Market development

Babbel	Busuu	Duolingo	Mondly
B2B launch to U.S. Affiliate program Playsay acquisition	Sold to Chegg	Expansion to Asia	Sold to Pearson Kun Academy

Table 12 Summary of used market development strategies

Product development

Babbel	Busuu	Duolingo	Mondly
Babbel Live	VR app release	TinyCards (app)	Virtual Reality (VR)
Babbel Games	Live tutoring	Duolingo Tutors	Augmented Reality (AR)
Language certificates	Language certificates	Duolingo Classes	Language certificates
		Language certificates	

Table 13 / Summary of used product development strategies

Product diversification

Babbel	Busuu	Duolingo	Mondly
Babbel Travel B2B release	McGraw Hill partnership Busuu Pro	Duolingo for Schools Duolingo Math Duolingo for Business	Mondly Kids Mondly Works

Table 14 / Summary of used product diversification strategies