CHALMERS

Latin American Market Expansion

An analysis of a digital advertising tool for the residential market

Bachelor's Thesis in Industrial Engineering and Management

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Abstract

Problem

PropTech Inc., a tech-company that provides real estate agencies with a solution to more efficiently advertise on social medias, is considering the possibility of expanding to the Latin American market. They need to make an informed decision regarding if and how they should move forward on this market but they lack the information to be able to do this. The information they are seeking is related to what the residential and online advertising markets look like in the different countries.

Aim

The purpose of this thesis is to conduct a market analysis on behalf of PropTech Inc. by examining the applicability of their product on the Latin American market. This should result in a clear recommendation where countries and market segments of particular interest are presented, followed by other market segments that could be of interest further in the future.

Theoretical Framework

The theoretical framework in this study consists of three concepts: market researches, surveys and sustainability. Apart from offering a definition for each concept, the framework also explains the parts included in each concept as well as how they should be conducted or taken into consideration in a study. This framework was taken into account throughout the study as a source of guidance whenever possible.

Method

The data collection in this study can be divided into three stages: a first and second screening of countries, where information was gathered from secondary sources, followed by surveys of the countries that made it through the screenings. The market segments surveyed were real estate agencies, property portals, real estate developers and institutions. In parallel, important information regarding the markets and PropTech Inc. itself was gathered through a few unstructured interviews.

Results and Implications

After having looked at factors such as GDP, social media usage and number of properties sold per year, five out of the 21 countries in Latin America made it through the first and second screenings. These countries were Argentina, Brazil, Chile, Colombia and Mexico. From these countries, a total of 33 survey answers were received. Using all of the data collected during the course of the study, the different market segments in each country could be ranked depending on how promising they seemed in PropTech Inc.'s current situation. While comparing the market segments, the three key factors looked at were the following: the expected demand the product would have, how well the company's current product would fit in companies and the speed in which they could be able to gain a large market presence. The conclusion is that real estate agencies in Argentina and real estate developers in Brazil seem like the most promising market segments of highest interest. The implication of this study is thus the recommendation for PropTech Inc. to prioritize these market segments if they do choose to expand into Latin America. The recommendation also includes other market segments that should not be prioritized as highly, but that could be of interest in the future if they choose to further expand into more countries.

Sammandrag

Problem

PropTech Inc., ett teknikföretag som erbjuder fastighetsmäklare en lösning för att effektivisera annonsering på sociala medier, överväger möjligheten att expandera till den latinamerikanska fastighetsmarknaden. De behöver fatta ett välgrundat beslut kring hur de ska gå vidare men saknar informationen för att kunna göra detta. Den information som de söker är främst relaterad till hur bostads- och annonsmarknaden ser ut i de olika länderna.

Syfte

Syftet med detta kandidatarbete är att göra en marknadsanalys åt PropTech Inc. och undersöka huruvida produkten är tillämplig på den latinamerikanska marknaden. Detta bör leda till en tydlig rekommendation där länder och marknadssegment av särskilt intresse presenteras, följt av andra marknadssegment som kan vara utav intresse längre framöver.

Teoretiskt Ramverk

Det teoretiska ramverket i denna studie består av tre begrepp: marknadsundersökningar, enkäter och hållbarhet. Förutom att ge en definition för varje koncept, förklarar ramen även de delar som ingår i varje koncept, så som hur de ska genomföras eller tas till hänsyn i en studie. Detta ramverk användes under hela studien som vägledning när det var möjligt.

Metod

Datainsamlingen i denna studie kan delas in i tre steg: en första och andra undersökning av länder, där information samlades in från sekundära källor, följt av enkätundersökningar av de länder som tog sig igenom de två första undersökningarna. De undersökta marknadssegmenten var fastighetsmäklare, bostadsportaler, fastighetsutvecklare och institutioner. Parallellt var viktig information om marknaderna och PropTech Inc. samlad genom ett fåtal ostrukturerade intervjuer.

Resultat och Implikationer

Efter att ha tittat på faktorer som BNP, användning av sociala medier och antal fastigheter som såldes per år, tog fem av de 21 länderna i Latinamerika sig genom första och andra undersökningen. Dessa länder var Argentina, Brasilien, Chile, Colombia och Mexiko. Från dessa länder samlades totalt 33 enkätsvar in. Med hjälp av all data som samlats in under hela studiens gång kunde de olika marknadssegmenten i varje land rangordnas beroende på hur lovande de verkade i företagets nuvarande situation. När man jämförde marknadssegmenten var de tre viktigaste faktorerna följande: den förväntade efterfrågan som produkten skulle ha, hur pass bra de potentiella kunderna skulle passa med företagets nuvarande produkt och hur snabbt de skulle kunna få en stor marknadsnärvaro. Slutsatsen blev att fastighetsmäklare i Argentina och fastighetsutvecklare i Brasilien verkar vara de marknadssegment av högst intresse. Implikationen av denna studie är alltså rekommendationen till PropTech Inc. att prioritera dessa marknadssegment om de väljer att expandera till Latinamerika. Rekommendationen inkluderar också andra marknadssegment som inte bör prioriteras lika högt, men som kan bli av intresse i framtiden om de väljer att expandera till fler länder.

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1 Introduction

The purpose of this section is to give an introduction to the study. This is done by first presenting the background to give the reader an overview about the setting and the problematics related to the study. After that, the company and their product are described and a problem breakdown is made to determine the purpose. The problem breakdown is then followed by a paragraph about the scope of the study.

1.1 Background

The ongoing increased adoption of digital technologies has led to a world that is more connected than ever before. A constant use of websites, social media and other online services creates a huge amount of data, much of which is not utilized. The data grows together with the users and the statistics website Statista shows that there are today almost 2.62 billion social media users who leave footprints behind when they perform different types of activities (Statista, 2018). At the same time, the digital age has made it possible for new products and services to be developed rapidly by technology-based emerging firms. Their ambition is to reach the global market, as 86% of tech-based start-ups are doing some type of cross-border activity, according to McKinsey Global Institute (McKinsey Global Institute, 2016).

The internet has thereby become one of the major contributors of economic growth in the world in recent years, as stated in an article from the property portal Lamudi (Lamudi, 2017). They give the residential market as an example of a market where this transformation and change towards digitalization has had a big impact. Further, they state that more than 50% of real estates worldwide are currently found and marketed through the internet. This is a considerable amount seeing as the adoption of the internet has reached 54% of the global population, according to Internet World Stats (Internet World Stats, 2017).

More people in the world keep adopting this technology. This is especially true in the Latin American countries where, according to Lamudi, an additional 6% of the total population started using the internet in 2015 (Lamudi, 2017). Latin America is the cultural geographic region of South America that includes the countries where a Latin language is spoken, according to Nationalencyklopedin (Nationalencyklopedin, 2018). As seen in *Figure 1*, the region includes 21 countries stretching from Mexico in the north to Chile in the South.

More people are also starting to use smartphones with the ability to use the internet with more freedom than before. Lamudi states that 262 million people bought a smartphone during 2016 in Latin America and it is predicted that there will be over 550 million smartphones in the region by 2020 (Lamudi, 2018). They claim that this trend among consumers in the Latin American countries is causing companies to rethink their current marketing strategies, and that marketing is changing from use of traditional channels, such as flyers or TV-ads, towards digital medias. This trend creates new possibilities for companies to develop more digital business models.

Figure 1: Displays a map of the Latin American countries.

1.1.1 The Company and its Product

Founded in Gothenburg in 2014, PropTech Inc. (PropTech Inc. is a pseudonym due to the company wanting to be anonymous in this study) realized a great untapped potential for the residential market to move forward in the digital era. With the large adoption of social media around the world, the company's founders knew more and more companies were focusing on using them as advertisement channels. However, they felt there was a lack of smart and easy ways for real estate agencies to use social media advertisements to its full potential. Consequently, their idea was to create a tool that would help real estate agencies optimize their marketing efforts on social media channels.

The company's main product is based on cookies and social media advertising tools. According to How Stuff Works, a cookie is a file that a website stores on a user's device and is retrieved whenever the user visits the website (How Stuff Works, 2000). As explained by How Stuff Works, cookies allow websites to distinguish different users in order to save their preferences and browsing history within their domain. With the permission from the client and help of cookies, PropTech Inc. can gather relevant information about potential real estate buyers who visit a real estate agency's website and its individual listings (meaning a page with one single residential object). This gathered information is then used to find patterns and make an analysis of the kind of people who are likely to be interested in a specific listing and then create targeted advertisements for the listing on social medias. The social medias on which PropTech Inc. currently creates targeted advertisement are Facebook, Instagram and Twitter, where Facebook is the most frequently used. The targeted group can for instance be people who have been searching for apartments in a specific area, or who have been looking for a certain kind of house. This is one of the key features that sets it apart from other targeted advertisement tools, as others often group together all users who visit a real estate agency's website, instead of analyzing different listings separately like PropTech Inc. does. The company even helps its clients automatically

create advertisements as soon as new listings are posted. The clients are the actors that pay for the advertisements, which could potentially be a property portal, a real estate agency, a real estate developer or the private home seller. Currently however, the company's clients are primarily real estate agencies.

Four years after its foundation PropTech Inc. now also has offices in the UK, Australia, France and Bangladesh, clients across 12 different countries and the ambition to keep growing. They are now looking into the Latin American residential markets for further expansion. Latin America is chosen for several reasons; economic growth in the region as well as it being a non-mapped market are some of the most essential ones. A key priority for PropTech Inc. when entering new markets is speed, as it decreases the risks of other actors imitating their product. They believe that these kinds of first mover advantages can be received in Latin America, which is also an important reason to why they are interested in this region.

1.1.2 Problem Breakdown

PropTech Inc. needs to make an informed decision regarding if and how they should move forward on the Latin American market. To do this they need a comprehensive description of the market in the respective countries, which is data that they currently lack. This data and analysis can be obtained through a market analysis of their product in Latin America.

As PropTech Inc. has a digital product that utilizes social media and websites, the prerequisites for using this kind of product in Latin America need to be understood. This should, together with information about the residential market form the basis for the analysis and recommendation. Not all Latin American countries will be suitable for the expansion, so the recommendation will need to specify which ones that are interesting. The recommendation will further need to include what market segments PropTech Inc. should approach (whether it is real estate agencies, property portals or real estate developers) as well as how they should be prioritized.

To satisfy PropTech Inc.'s needs, the following questions must be answered:

- What does the residential and online advertising markets look like in the Latin American countries?
- Which Latin American countries present the best opportunities for an expansion in terms of increasing revenues and global market share with a low amount of adjustments to the product?
- Which are the most interesting market segments?

1.2 Purpose

The purpose of this thesis is to conduct a market analysis on behalf of PropTech Inc. by examining the applicability of their product on the Latin American market. This should result in a clear recommendation where countries and market segments of particular interest are presented, followed by other market segments that could be of interest further in the future.

1.3 Scope

The scope of the project will follow the theory presented about how a market research is conducted. The recommendation will be based on what market segments that would most likely generate the most revenue and increase the global market presence for PropTech Inc., all while minimizing efforts on adjustments in the product and organizational structure of the company. As such, the focus in this study is on the company's existing product and therefore, in regard to social media usage, only examines the usage of Facebook, Instagram and Twitter. The study covers all 21 Latin American countries.

2 Theoretical Framework

To create a valuable analysis, a few theoretical models and definitions have been studied. These are presented in the following section.

2.1 Market Research

According to American Marketing Association a market research is a systematic gathering, recording and analyzing of data about the problems relating to the marketing of goods and resources in different companies (American Marketing Association, 2004). The three marketing scientists Michael Hayes, Nils-Erik Aaby and Per Jenster state that a market research investigates and specifies the information needed when making a business decision about marketing of new products or services (Hayes, Aaby and Jenster, 1996). It also forms the procedure of gathering the information and how it should be done according to Jeffrey Seglin (Seglin, 1990). Sontakki means that this should result in an analysis of the market that should lead to developing strategies and opportunities to face the key problems that are defined as objectives and long-term goals for the company (Sontakki, 2010).

A market research is extensive and contains many different parts. Hayes, Jenster and Aaby states that the research can be divided into two different analyzing perspectives: internal and external analysis (Hayes, Aaby and Jenster, 1996). The external analysis treats the customer demand, market, competitors, structure of the industry, distribution structure, product lifecycle and environmental climate. The internal analysis contains three main parts: skills of the firm, financial resources of the firm and corporate or business strategy. Hayes, Jenster and Aaby state that marketing strategies can be developed from the combination of internal and external analyses.

In contrast to the internal factors, the external factors are beyond control. Oxford College of Marketing states that it is important to notice that the external factors can be divided into two parts: micro and macro environment factors (Oxford College of Marketing, 2017). *Figure 2* below shows that the micro perspective treats the market that the organization is operating in, while the macro perspective treats factors that are more comprehensive and outside the market.

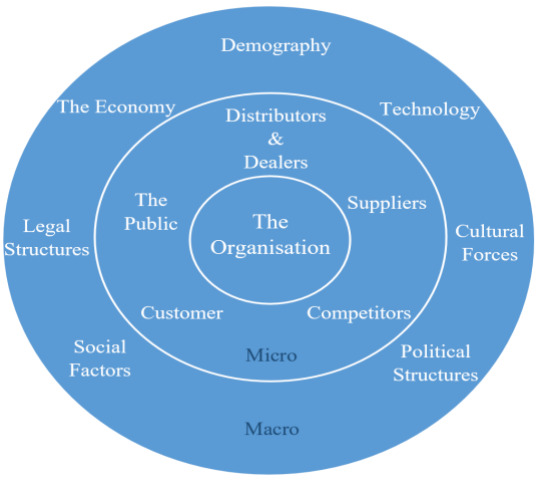

Figure 2: This figure shows how external factors can be divided into micro and macro perspectives. The inner circle called "The Organisation" refers to the internal analysis.

2.2 Surveys

According to Iarossi there are three broad factors that contribute to a high level of survey participation and response rate (Iarossi, 2006). The three factors are: the social environment, the survey design and the respondent's state of mind. Iarossi also states that they can all interact and generate both positive and negative effects on the survey.

Iarossi explains that the first factor, social environment, depends on two parts: social responsibility and social cohesion (Iarossi, 2006). They both characterize the social environment in which the survey takes place. The perceived legitimacy of the one who has created the survey as well as the sense of social responsibility of the approached respondent both determine the respondent's willingness to answer the survey, according to Iarossi. Another thing that has to be understood is that a respondent from Sweden is motivated in other ways than a respondent from, for instance, Colombia. It is therefore important to understand the different cultures and social environments before the survey is created, according to Iarossi.

Iarossi's second factor is the survey design (Iarossi, 2006). He further explains that a survey should be designed based on different choices regarding the survey methodology, the characteristics of the one who has created the survey and the investigation unit. He also says that the attributes that play a big role for survey participation due to the survey methodology are the topic of the survey, the mood of the initial contact and the one who makes the initial contact. It is therefore important to make a good first impression on the respondent with the survey with an appealing design and construct an interesting topic.

The third factor is a respondent's state of mind, which is one of the most difficult factors to handle according to Iarossi (Iarossi, 2006). As stated by Iarossi, this factor is more about receiving a sufficient number of responses once the survey has been sent out and goes deeper on the psychology of the respondent. He further explains that it treats some different kinds of norms and feelings the respondent experiences while getting and filling in the survey. An example he gives is that the feeling of social proof pushes people to adopt the same behaviors as others because of the willingness to fit in. It is therefore more likely that people who are sensitive to this kind of feeling will respond to the survey if there is a high degree of survey participation from others, according to Iarossi.

2.3 Sustainability

Bohlin and Teppayayon describe sustainable development as meeting the needs of the present without compromising the ability of future generations to meet their own needs (Bohlin and Teppayayon, 2009). KTH Royal Institute of Technology further divides sustainability into the three dimensions that are displayed in the Venn diagram in *Figure 3* below (KTH, 2016). These are: environmental sustainability, economic sustainability and social sustainability where the three aspects are given the same importance. KTH states that sustainable development is achieved when all the aspects are covered.

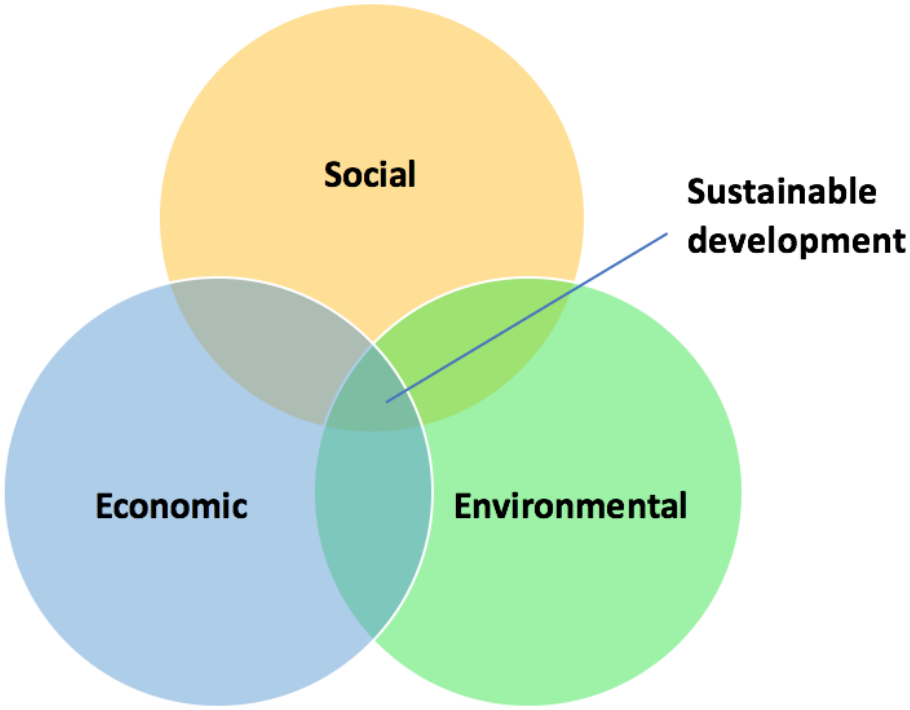

Figure 3: Displays a Venn diagram of the three factors of sustainability, as described by KTH.

According to KTH, environmental sustainability treats aspects that affect the earth's ecosystem such as the stability of the climate, air and water quality and biodiversity (KTH Ekologisk hållbarhet, 2016). They state that if humans are to be environmentally sustainable the production of products and services may not exceed the earth's ability to produce new natural resources.

KTH describes social sustainable development as the factors that affect the needs of the individual, both physically and psychologically (KTH Social hållbarhet, 2016). They state that to give people the possibility to cater these needs is to work in a socially sustainable way. KTH describes that the goals set up by the UN in 2015 to reach sustainable development treat aspects such as wellbeing, justice and human rights.

According to KTH, economic sustainability can be described differently depending on the model that is being used for sustainability (KTH Ekonomisk hållbarhet, 2016). The model used in this study will treat economic sustainability as economic growth, which is one of the two described by KTH.

3 Research Questions

With the main questions posed in the *1.1.2 Problem Breakdown* section as well as with the purpose of the study in mind, a set of research questions were decided upon. The purpose of this section is to present these research questions and explain why they are relevant for this study.

3.1 Macroeconomic Factors

Some macroeconomic factors are relevant in order to see the potential value of a market for PropTech Inc. as well as to determine risks associated with entering that market. For example, a country's GDP is a good indication of total wealth and the population's purchasing power. In order to get an even better understanding of people's purchasing power, GDP per capita may be used because it shows the purchasing power every individual person has on average. Although there are some difficulties when using such metrics, like the disregard for the distribution of wealth inside a country, they are good estimates that are very easy to obtain and allow for an early comparison of countries. Other metrics, such as the total amount of residential objects sold in each country per year, are more detailed and will give a better estimation of a potential market size, which is why they were also sought after.

3.2 Market Fragmentation/Consolidation

The structure of the residential market can vary a lot between different countries. The market structure refers to whether the market is consolidated or more fragmented in terms of numbers and size of firms in the marketplace. Some countries only have a few big actors that dominate the market (consolidated markets) while others have many actors that possess a smaller market share each (fragmented markets). In this case the market can be divided into real estate agencies (who handle the transaction of residential objects), real estate developers (who develop new residential objects) or property portals (which is a website that aggregates residential objects for sale from several independent actors), each of which has its specific structure.

When determining which countries that suit PropTech Inc. to the highest degree it is important to look at the market structure of the country. According to PropTech Inc., this factor plays a big role since it usually requires less resources to enter a consolidated market. They currently require a minimum of 3000 units sold per year for a customer to be profitable enough. An additional benefit is that taking on large actors results in the company getting a larger market share per customer acquired, which increases speed of taking on a new market. That is because it takes less effort to build relationships with a smaller amount of actors. Another benefit of a consolidated market is that larger actors are more profitable for PropTech Inc., as they usually spend more resources on advertisements. Actors on fragmented markets can also be in situations where they need advertising, but since they sell less properties they also tend to spend less money on advertising, which makes them less attractive to PropTech Inc.

3.3 Franchise or Company-Owned Business Structure

According to Charles Doyle in "A Dictionary of Marketing" a franchise is a type of business structure where a concept or product can be used by an independent distributor (franchisee) for a fee to the

trademark owner (franchisor) (Doyle, 2016). In most cases the franchisee has the opportunity to, independently of the franchisor, make decisions about their own marketing. On the other hand, a company-owned business structure is where all the decisions come from a central headquarter.

It is important to take into account whether a company is part of a franchise or has a company-owned business structure, due to where the power to make decisions lies. According to the CEO of PropTech Inc., a market which is dominated by company-owned firms tend to centralize the decision-making power. In this case PropTech Inc. can go directly to the headquarter to sell the product. This leads to fewer but bigger decisions for the entire company to adopt PropTech Inc.'s product. It often results in longer time for the customer to decide whether to start adopting the product or not. In the case of a franchise-owned structure PropTech Inc. has to sell the product to every small office. This leads to a more decentralized decision-making with less pressure over the decision. Therefore, every small decision tends to go faster in a franchise. PropTech Inc. works with both franchises and company-owned firms, but when they want to enter a new market they prefer firms that are company-owned. This is because they want to take the market by storm which is most easily done by convincing the highest decision maker. This leads to a higher level of speed of the market entrance because if a company-owned firm decides to adopt the product it will be applied directly on the whole firm, and this leads to a smaller risk for competitors to imitate the product. With a franchise it would have been harder to surprise the market in the same way because of the many small franchisees that must be convinced.

3.4 Exclusivity

In this study, exclusivity refers to the exclusive right for a real estate agency to sell a property on behalf of the owner. This means that no other real estate agency is allowed to sell the property and that the agency with exclusivity does not have to compete against other agencies. Whether it is normal to grant agencies exclusivity varies from country to country and depends on the culture. According to PropTech Inc., agencies in Sweden are nearly always granted exclusivity while in Spain it is very rare. There are also countries where agencies sometimes get exclusivity but other times do not. These kinds of markets are in this study referred to as semi-exclusive markets.

When evaluating whether a country is suitable for PropTech Inc.'s product, exclusivity has so far been a key factor for the company and will therefore also be an important piece of information in this study. As explained by PropTech Inc., the reason why exclusivity is so important for the product to be appealing to real estate agencies in a given market is because it gives more incentives for real estate agencies to spend on publicity for particular homes. Exclusivity ensures that advertisement for a particular home will attract interested buyers to the real estate agency that made the advertisement, without the risk of the interested buyer seeing the publicity but going to another agency. In a non-exclusive markets it is therefore not as attractive to advertise properties since the agency is not guaranteed to get the commission once the house gets sold. Thus from PropTech Inc.'s point of view, if a real estate agency is not interested in advertising due to lack of exclusivity, the agency will also most likely not be interested in PropTech Inc.'s product.

3.5 Payment and Transaction Structure

During the transaction process of real estates there are a number of stakeholders, such as buyers, sellers, agencies and developers, that interact with each other. Apart from the ownership transaction

between the buyer and seller these interactions also lead to monetary transactions that involve other stakeholders, such as when the agency gets commission for realizing the sale of a property. However, real estate agencies and portals in different markets may have different payment structures that determine which stakeholders are involved in each transaction.

One example that is of interest is when an agency has exclusivity but still is open towards collaborating with other agencies. This mostly occurs in markets where not only sellers use agencies to help them sell the property, but even buyers use an agency to help them find an adequate property. In this case, the buyer's agency will contact the seller's agency to inform them they have a client interested in buying the property. If the interested buyer ends up purchasing the property, the buyer's agency gets a commission from the seller's agency as a reward. Knowing to which degree buyers use their own agency is interesting because what PropTech Inc.'s product is trying to accomplish is to improve seller's agencies' marketing efforts so that potential buyers get targeted advertisements on social medias. This would lead to the buyer not needing his/her own agency to find a property, thus making PropTech Inc.'s product a potential threat for buyer's agencies. The reason why this could be something negative for PropTech Inc. is because it is likely that many agencies are in some cases a seller's agent and in other cases a buyer's agent. This could lead to a seller's agency not being interested in PropTech Inc.'s product because they also see it as a threat or unnecessity and are content with the status quo. So far none of the countries where PropTech Inc. operates have residential markets where buyers' agencies are prevalent, which means that if buyers' agencies are common in Latin America it would be a new situation for them to face. There are several uncertainties related to this and it is therefore something that must be examined.

3.6 Use of Property Portals

PropTech Inc.'s product currently works accordingly: when a property gets listed the real estate agency gets an automated message asking them if they would like to advertise the property on social media using PropTech Inc.'s tool. However if the product is to be implemented by a property portal, which as previously mentioned is a website that aggregates residential objects for sale from several independent actors, instead of an agency, there are different options regarding who gets to make the decision to advertise on social medias. It could either be the portal itself or the one trying to sell the property, which could either be a private homeowner, a real estate agency or a real estate developer. To determine whether a property portal is a potential client for PropTech Inc. it is therefore important to know who the primary users of the portal are, since this could affect whom the product would be tailored for. Another way a widely used property portal is useful is as a bargaining tool when talking with prospective clients, this will further be discussed in *7.2.4 Property portals*. Through PropTech Inc.'s product, agencies can direct traffic back to their own website without having to rely on a property portal. For this reason it is also important to research the largest portals in every country and information about the amount of listings on these respective portals.

3.7 Use of Advertisement Channels and Social Media

According to the Business Dictionary, advertisement channels are media channels that are used in promotional purposes for different companies (Business Dictionary, 2018). The use of these channels varies a lot between different markets and countries. It is common to talk about traditional marketing channels such as television, radio and newspaper but more modern advertising channels also exist, such as internet marketing and social media advertising.

A prerequisite for the product to work properly is for the country of interest to not have any law that prevents the use of cookies on websites. The use of social media is also of great importance for PropTech Inc. when it comes to advertising since the product is based on this type of advertisement channel. It is therefore important that potential markets have a large amount of social media users. Regarding PropTech Inc.'s potential customers themselves, they have a larger possibility of being interesting to PropTech Inc. if they spend more on advertisements. It is also a benefit, but not a requirement, that they currently use social media to advertise as they are then more likely to be open towards using PropTech Inc.'s product.

3.8 Internal Aspects

As previously mentioned, the internal aspects of a market analysis consist mainly of the skills, financial resources and strategy/goals of the firm. Another aspect that is analyzed in this study is the organizational structure of PropTech Inc.

To analyze whether a market expansion is the right move for PropTech Inc., their overall business strategy will be needed to be taken into account. If it is the right move, they will also need to possess the financial resources for a market expansion. It is important to have a certain knowledge about the culture, language and market characteristics in the specified countries. PropTech Inc. therefore needs to possess this kind of knowledge about the Latin American market before they possibly expand. Skills such as a strong sales and marketing team will also be critical for an expansion. Further, it is beneficial if PropTech Inc. has an organizational structure that is open to change and growth as there would then be no internal resistance that complicates the market expansion.

3.9 Summary of Research Questions

In order to give an overview of all the research topics mentioned, a summary in the form of a bullet point list was made. In order to determine whether an expansion in Latin America is reasonable for PropTech Inc., the following questions were answered:

- How big is the residential market in each country in terms of sold units and price of residential objects?
- Are the markets fragmented or consolidated?
- Which business structure is most common, franchises or company-owned?
- Do real estate agencies normally get exclusivity?
- How often are buyer's agencies used?
- How widely used are property portals?
- Which are the stakeholders that primarily use property portals?
- Is the use of cookies allowed?
- Which advertisement channels do real estate companies use and to which extent?
- How do real estate agencies, real estate developers and property portals use Facebook?
- How much do people use social medias?
- What are PropTech Inc.'s strategy and goals?
- What skills and financial resources do PropTech Inc. possess?
- What does the organizational structure in PropTech Inc. look like?

4 Method

This section describes the method used to collect the data that was used to answer the research questions. The methodology chosen was motivated in part by the input received from PropTech Inc., but also from the theory presented in the theoretical framework. An analysis of the impact that PropTech Inc.'s Latin American expansion would have on the three dimensions of sustainability in the studied regions was also made.

4.1 Methodological Approach

There are, according to Eriksson & Wiedersheim-Paul, three main kinds of methodological approaches (Eriksson and Wiedersheim-Paul, 1997). The first one is inductive, where empirical data is used to generate new models. Due to the result of these kinds of studies being unknown at the start of the project, the problem definition is according to Eriksson & Wiedersheim-Paul oftentimes vague. The next one they mention is the deductive method approach. By using this method, Eriksson & Wiedersheim-Paul explain that the study tests a set of theories and/or hypotheses. They argue that this approach, contrary to the inductive one, requires a well-defined problem. The third one they mention is the abductive methodological approach, which is a combination of different parts of theory, empiric data and method to develop new methods. Due to this study having a well-defined problem and set of questions one might argue that the deductive approach would be the best fit. However it is also quite explorative in nature, as the type of the data that was collected was not known beforehand. The abductive approach was therefore chosen.

4.2 Overview of Data Collection

A normal distinction of data in scientific studies is qualitative and quantitative data. Eriksson & Wiedersheim-Paul describe qualitative data as often consisting of text material and having a complex context (Eriksson and Wiedersheim-Paul, 2008). They also claim that quantitative data on the other hand is easy to measure and compare through its numerical values.

The data collection in this study can be divided into three parts: first screening of countries, second screening of countries and a survey of the selected countries. All of them are mainly quantitative. There are however elements of qualitative data in the second screening and the survey. The quantitative approach was chosen for several reasons. For one, it is easier to compare quantitative data between the countries – which made the analysis at the different stages more time-efficient. Quantitative data was also deemed to be the best fit for answering most of the research questions. The main exceptions are the questions about the internal aspects of PropTech Inc. which are more qualitative.

To reduce the 21 Latin American countries and rule out the countries that would obviously not be interesting for the purpose of the study, a first study was conducted. This was made as an almost entirely quantitative screening with data from secondary sources on the internet (which is data not collected for the purpose of this study), due to the benefits of time-efficiency with this approach. After the first selection process, a second more thorough screening was made. This time the study was more focused on the residential market in the selected countries and some data points of more qualitative

nature were included. The second screening, like the first, consisted of data from secondary sources found on the internet. As gathering information from secondary sources is more time-efficient compared to primary sources, it was deemed as a suitable method at this stage as well. The second screening was made to reduce the time and complexity of conducting the survey – the third and final part of the data collection.

The survey was conducted with a combination of qualitative and quantitative questions in order to be able to define the residential markets in the selected countries in more detail, as well as to get a picture of potential competitors and hidden opportunities. Some of the data about the different countries gathered from the screenings and the survey were then compared to information about two of PropTech Inc.'s existing markets: Sweden and the United Kingdom. These were chosen as they are both markets where PropTech Inc. has been very successful. The information about these two countries was given from the contact person at PropTech Inc. and collected from secondary sources on the internet.

To provide a more complete market analysis according to the theories described in *2.1 Market Research*, the external factors needed to be complemented by internal factors about PropTech Inc. This information was collected from an interview with the contact person at PropTech Inc.

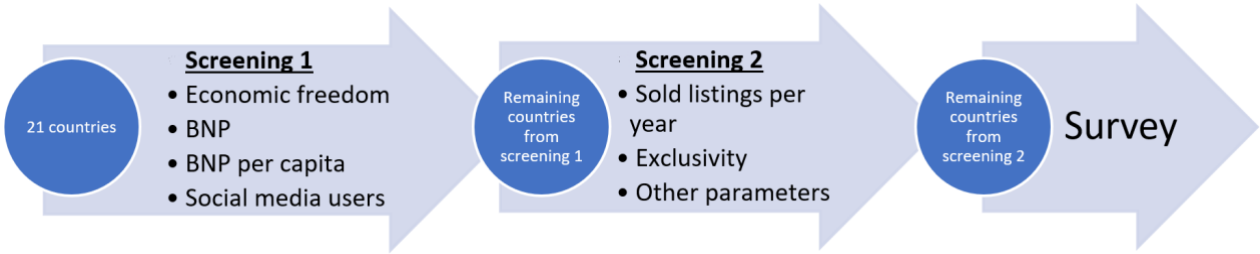

Figure 4: Displays an overview of the different stages of the study's data collection.

4.3 First Screening of Countries

For each of the Latin American countries, data was gathered regarding GDP, GDP per capita and social media usage (Facebook, Instagram and Twitter). Prior to this however, research regarding countries economic freedom was conducted in order to rule out countries without fundamental governing systems required for private companies to succeed. The GDP gives a rough estimate of the residential market's size and the GDP per capita a rough estimate of the population's purchasing power. Further, social media gives an indication of how applicable PropTech Inc.'s product is on the market. All of these data points could then provide a basis for the first screening. The data was compiled into an Excel spreadsheet for ease of comparison, where it was analyzed to give a smaller set of countries. The most prominent countries were then selected for each factor. This analysis is further described in sections *5.1 Analysis and Results of First Screening of Countries* and *Appendix A - Analysis of First Screening*.

All of the data was collected from secondary sources and most of it was collected from Statista. As stated above, the main benefit of this method was the time-efficiency as finding this type of information on the internet consumes much less time than gathering it from primary data sources. Another benefit was that the websites were perceived as reliable and able to provide data more accurately than other alternatives. This first screening therefore helped the study to be more focused on the actual purpose.

4.4 Second Screening of Countries

For the countries remaining after the first screening a second data gathering and analysis was made. As mentioned earlier, this study focused on the residential market in the respective countries. The goal was to include as many parameters from the questions in *3.9 Summary of Research Questions* as possible. In other words, all data that was relevant and could be accessed with a reasonable effort through secondary sources on the internet was collected. This screening was done to increase the time efficiency of the survey as well as to increase the probability of getting a sufficient amount of responses – as fewer questions could then be asked in the survey leading to a better completion rate. The second screening was also done so that countries with an unsuitable residential market for PropTech Inc. could be excluded from the survey. Countries that did not reach the acceptable levels in the analyzed parameters were excluded from future research.

The aforementioned approach leads to this part of the study being both quantitative and qualitative in its type of data. For each of the remaining countries, the following information was collected (qualitative data is bolded):

- Average price of real estates (per square meter)
- Sold listings per year
- Commissions for real estate agencies (in percentage of selling price)
- **Exclusivity on the residential market**
- **Market fragmentation/consolidation**
- Cookie restrictions for websites
- Whether the real estate agencies have their own websites with listings

After all the data had been collected, it was compiled into a spreadsheet and analyzed. The details of the analysis can be read at section *5.2 Analysis and Results of Second Screening*.

4.5 Survey

For the main part of the study, the survey method was chosen. Eriksson & Wiedersheim-Paul define a survey as a questionnaire or interview where the same questions are asked to several different people (Eriksson & Wiedersheim-Paul, 2008). They also mention low costs, accessibility and low social impact as benefits with the survey methodology. Another perceived benefit with surveys is that they provide a data set that is easily comparable. These factors were all considered as important to the study and the survey methodology was therefore argued to be suitable. It is also worth mentioning that the motivation for collecting primary data at this point was to collect data that could not be obtained through secondary sources, as well as to verify some of the secondary data.

4.5.1 Creating the Survey

Starting with the questions from the *3.9 Summary of Research Questions* section, surveys in the form of questionnaires were made. The following categories of respondents were surveyed:

- Real estate agencies – as potential customers in suitable markets and providers of information on a micro level
- Property portals – as potential customers in suitable markets and providers of information on a micro level
- Real estate developers – as potential customers in suitable markets and providers of information on a micro level
- Institutions within the real estate industry – as providers of information on a micro level

Although real estate developers are not currently of interest to PropTech Inc., they were still included in the survey as a category. This was motivated since real estate developers have exclusivity of their real estates if they choose to sell the separate residential objects themselves, as they are the sole owners of those.

The survey questions were based on the research questions. A different survey was created for each of the different categories, in order to adjust which questions would be asked and how they would be worded. At first, base versions of the surveys were made in English. These versions were quality tested through consultation with PropTech Inc. (to make sure that no important question would be missing) and the project supervisor (to get further feedback on the survey). They were also tested by personal contacts on the Swedish residential market to ensure that the questions would be possible to answer. However, it was noted that some questions might not be possible to answer due to secrecy of business information.

A challenge when creating the surveys was to manage the trade-off between getting enough responses (by making fewer and less complex questions) and getting all the required information (by making more and precise questions). There were also other factors that had to be considered when creating the survey to get a high response rate. The surveys were inspired by Iarossi's factors that should be considered when creating surveys, which were presented in *2.2 Surveys*.

After the surveys had been verified they were translated to Spanish and Portuguese (to increase the response rate), and exported to the application "Google Forms". Google Forms was chosen for several reasons: it is free to use, the project team members had prior experience with the application and the Google brand was thought to give legitimacy to the survey. All the questions were made optional to increase the probability of a respondent finishing the survey. The English versions of the surveys in their final form can be found in *Appendix B - Surveys*.

4.5.2 Sending out the Survey

The method used to find potential respondents within the different categories was internet browsing. Contact information like email addresses and telephone numbers were gathered for potential respondents from different websites. A website called "hunter.io" simplified the process of gathering the contact information, as it could provide all the names and email addresses posted on a given website. The aspiration was to get a wide spread of respondents with different positions, to avoid getting biased data. To make sure that there would be good conditions for getting many responses in

the survey, a large number of potential respondents needed to be identified. Thus, gathering this information demanded a lot of resources from the project group. A difficulty at this stage for most of the team members were the foreign languages (Spanish/Portuguese) on the websites. This was handled by a webpage translate function provided by the web browser "Google Chrome".

For the potential customer categories, there were some requirements that needed to be fulfilled for them to be valid for the survey. Their webpages needed to fit a certain standard defined by PropTech Inc. For example, all residential objects needed to have a separate page listing for the website to be valid for PropTech Inc.'s algorithm. Furthermore, real estate agencies and real estate developers needed to reach a minimum of 3000 units sold per year for them to be interesting to PropTech Inc. in the short term. Real estate developers also needed to sell their newly built properties directly to home buyers instead of going through a real estate agency, to fit PropTech Inc.'s business model.

The objective was to, for each surveyed country, reach at least five responses from real estate agencies, three responses from property portals, three responses from real estate developers and one response from an institution. The total goal of answers therefore depended on two factors: how many countries that would be surveyed and which categories in each country that would be surveyed.

Emailing was the first method used to send out the surveys. A standardized text, with small adjustments for different countries and respondent categories, was developed to increase the speed of this endeavor. The text introduced the study (without going into detail and mentioning PropTech Inc.) before it shortly explained the survey. It was also promised that the study would be shared with interested respondents once finished, to increase the incentives of responding. In order to increase the response rate, the respondents were also promised that they would remain anonymous. The text did not, however, mention that the study was conducted for the purpose of a potential market expansion and thereby in service of a company. This was consciously avoided as it was believed that it could lower the amount of responses. It can be argued whether withholding this information was right from an ethical standpoint, as some respondents might not have answered the survey if they had more knowledge about the study. The English version of the email introduction text can be found in *Appendix C - Introduction Email for Survey Respondents*.

Since emails alone were believed to not generate enough responses the next method used was phone calling. The approach with the phone calls was to ask the exact same questions as in the questionnaire and fill them in on behalf of the respondents simultaneously. Although phone calls did allow for more flexible and spontaneous questions, this was consciously avoided to get a more comparative data set and increase the chances of the respondents wanting to finish the survey.

Simultaneously as the phone calling approach went on, a social media approach was deployed. Mainly two social media networks were used: LinkedIn and Facebook. The standardized email texts were adjusted to fit the respective social networks. For LinkedIn, monthly free trials of premium accounts were acquired in order to be able to use the network's messaging service to reach people outside of one's network (called "InMail"). When having access to the premium functionalities, finding potential respondents and sending out surveys through LinkedIn was relatively easy. The information found on LinkedIn was also used to find potential respondents on Facebook, where the messaging service "Messenger" is free of charge.

In addition to the surveys, a couple of informal interviews were conducted with personal contacts from some of the countries. These provided complementary information that were not obtained through the surveys. Some data at this stage was also collected from secondary internet sources. The results from the interviews and secondary sources are presented together with the survey results in *6 Results of Survey, Interview and Complementary Data*.

4.6 Data Collection of Internal Aspects

The research questions about PropTech Inc.'s internal situation could only be answered from the company itself. An interview with the contact person at PropTech Inc. was therefore made. Some information was also collected from a document provided by PropTech Inc. as well as the meetings and discussions that the project team had together with the CEO and other representatives from PropTech Inc. The following questions were asked during the interview:

- What kind of skill sets do the employees at PropTech Inc. possess? Is there any skill that could be of extra use for an expansion? Is there any skill missing for an expansion?
- Does PropTech Inc. have any business contacts in Latin America? Are there any current corporate partners or customers that do business in the Latin American region?
- How is PropTech Inc. financed?
- What are the long and short-term goals/objectives? What is the current business strategy?
- What does the organizational structure of PropTech Inc. look like?

5 Analysis and Results of First and Second Screening

The purpose of this section is to present and analyze the results obtained for the first and second screening of the countries, which resulted in countries being excluded from the survey.

5.1 Analysis and Results of First Screening of Countries

After compiling the data necessary, the method decided upon for the first screening could be performed. The first step was to exclude Haiti, Cuba and Venezuela from further examination due to two different reasons. Haiti was removed due to an extremely low GDP according to Statista and the difficulty in finding data regarding social media usage (Statista, 2018). Cuba and Venezuela on the other hand were removed due to having an extremely low index of economic freedom, an index used by the Heritage Foundation that measures the fundamental right for people to control their own labor and property which is vital for private companies to succeed (The Heritage Foundation, 2018).

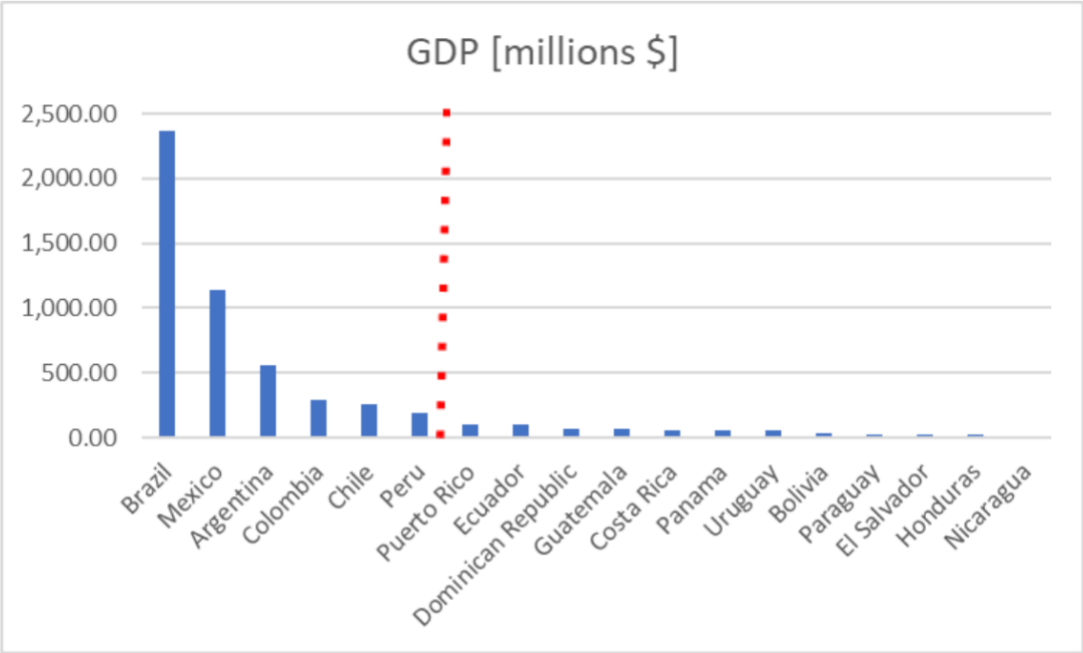

Figure 5: Shows GDP in millions of dollars for 18 Latin American countries in 2017. Countries to the left of the red-dotted line are those deemed to have a sufficient GDP. The data in the chart is retrieved from Statista.com.

Next, five separate charts with each country's GDP, GDP per capita, usage of Facebook, usage of Instagram and usage of Twitter were used to rank and compare the countries. *Figure 5* illustrates how the process was used to select the countries with a GDP deemed to be sufficient (Brazil, Mexico, Argentina, Colombia, Chile and Peru). How the dotted-line was placed was subjective and depended on the absolute amount as well as gap between adjacent countries, as PropTech Inc. did not provide any exact requirements. Another factor that affected how the line was positioned was making sure that a few countries would always make the cut. *Figure 5* illustrates a big difference in GDP between

Brazil and Mexico but also between Peru and Puerto Rico. Thus to make sure more than one country would make the cut, the red-dotted line was drawn between Peru and Puerto Rico.

The remaining charts were analyzed in the same way and can be found in *Appendix A - Analysis of First Screening*. By using this method five separate lists of countries could be produced, one for each category used in the method as seen in *Table 1*. Some lists contained less countries than others due to there being fewer noteworthy countries within the category.

Table 1: This table shows the five separate lists of countries. The lists contain the selection of countries that were deemed to have a sufficient GDP / GDP per capita / number of Facebook/Instagram/Twitter users. Each list is ranked from best to worst.

GDP	**GDP per capita**	**Facebook**	**Instagram**	**Twitter**
Brazil	Puerto Rico	Brazil	Brazil	Mexico
Mexico	Uruguay	Mexico	Mexico	Argentina
Argentina	Chile	Argentina		Brazil
Colombia	Panama	Colombia		
Chile	Argentina	Peru		
Peru	Costa Rica	Chile		
	Brazil	Ecuador		
	Mexico			

As mentioned earlier, GDP was analyzed since it gives a good indication on how wealthy a country is. The wealthier a country is, the more they are probably willing to pay for advertising. It is reasonable to assume that a country with a high GDP also has a big residential market in terms of revenue. GDP per capita was also taken into consideration since it indicates the general purchasing power of the habitants in each country.

The amount of social media users was analyzed since it gives an indication of the potential market size to PropTech Inc. The social networks Facebook, Instagram and Twitter were examined because these are the platforms PropTech Inc. currently uses. Since PropTech Inc. mostly uses their advertising tool at Facebook rather than Instagram and Twitter, the usage of Facebook is more important than the usage of Instagram and Twitter. In this case it did not make any difference though because the countries with a high usage of Instagram and Twitter (which were Argentina, Brazil and Mexico as illustrated in *Table 1*) were also at the top in usage of Facebook.

Once the lists were produced, the screening procedure could proceed into the next phase. Here, countries that were not included in enough lists were removed. The requirement for a country to stay was for it to be included in either the GDP list or GDP per capita list as well as in the Facebook list since it is important for a country to both have a large residential market and many Facebook users (or

that they had a very high usage of Instagram/Twitter that could compensate for the low usage of Facebook). Countries passing the screening were thus Argentina, Brazil, Chile, Colombia, Mexico and Peru.

5.2 Analysis and Results of Second Screening of Countries

PropTech Inc.'s current top priorities for entering a market are exclusivity and the total amount of listings sold in a country every year, or more precisely the number of agencies selling more than 3000 units per year. As stated earlier, exclusivity is a priority for PropTech Inc. since a real estate agency does not have any incentive to market a specific residential object if they do not have the certainty that they will be the one earning the commission from selling it. The 3000-unit limit was, as mentioned, set in place since at this point in time a company selling fewer units would not be profitable enough for PropTech Inc. to be worth the effort. Since the difficulty of finding information about the residential market structure (level of consolidation/fragmentation) was substantially higher than finding the amount of total listings sold in a country, the market structure was left to be found through surveys. The other parameters looked at were price per square meter, real estate agencies commissions, legality of cookie usage on websites and if listings were posted on real estate agencies' websites.

5.2.1 Sold Listings per Year

Sold listings per year is one of the two most important parameters for PropTech Inc. It is a good approximation for the potential size of the market, and if there are real estate agencies with more than 3000 units sold per year. Since there was no exact data on the amount of sold units for every country it was impossible to eliminate more than one of the countries in *Table 2* below: Peru. As a whole country, Peru had less sold units than some of the capital cities of the other countries which is why it was eliminated from future research.

Table 2: Shows the amount of units sold in each country per year.
** Units sold in the largest city*

Country	**Units sold**	**Sources**
Argentina	63 382*	Perfil 2018
Brazil	105 300	Belson, 2017
Chile	31 934	La Tercera, 2018
Colombia	25 024*	La Secretaria Distrital del Hábitat Bogotá, 2017
Mexico	626 358	El Economista, 2018
Peru	13 533	Arredondo, 2017

5.2.2 Exclusivity

Table 3: Shows the exclusivity on the residential market in every country.

Country	**Exclusivity**	**Sources**
Argentina	Semi-exclusive	Just Landed, 2018
Brazil	Semi-exclusive	ZapPro, 2014
Chile	Non-exclusive	Just Landed, 2017
Colombia	Non-exclusive	Charry, 2018
Mexico	Non-exclusive	Contact person in Mexico

As for exclusivity, most of the remaining five countries were non-exclusive, with two notable exceptions. These were Brazil and Argentina which, although not fully exclusive, seem to have a mix (referred to as "semi-exclusive" in this study). Since PropTech Inc. was highly focused on looking for markets with exclusivity, these findings lead to the division of the remaining five countries into two groups. The first group consisted of Brazil and Argentina, which were to be examined more carefully from the perspectives of all the categories. Mexico, Colombia and Chile on the other hand were only to be examined from the perspective of property portals, real estate developers and governmental institutions. The reason for this division was that PropTech Inc.'s product may still be useful in countries without exclusivity, just not to real estate agencies. A more suitable buyer of the product would in these cases be the property portals or real estate developers because they are not affected by exclusivity the same way agencies are. Unlike agencies, no matter if a given portal is the only portal advertising a property it can make an earning from listing the property. As for real estate developers, since they are the property owner they also make an earning, regardless if they sell it themselves or with the help of a real estate agency. Portals and real estate developers were therefore of interest to the study in all markets, both exclusive and non-exclusive.

To see if the exclusion of real estate agencies from non-exclusive markets was justified, a professional working at a major real estate agency in Mexico was interviewed. First of all, he could confirm that in Mexico exclusivity is very rare, although it is slowly getting more common. Next, he could agree that there probably was a correlation between exclusivity and the amount of advertising. As stated by him, most real estate agencies would only spend on publicity if they had exclusivity and that most do not allocate funds to hire advertising platforms in general. Another possibility could be that interested buyers by habit contact agencies they already know instead of the one who published the residential object.

However, one possible source of error with the account given by the professional is that he has only worked in Mexico and it might not be the same in all of Latin America. When asked if he thought the situation was the same in Colombia, where his company also has offices, he did however imagine so. Instead of spending time on finding more sources from other countries to verify the correlation, the

decision to adopt PropTech Inc.'s view on exclusivity throughout the entire study was made, and, real estate agencies from Chile, Colombia and Mexico were thereby excluded from the survey.

5.2.3 Other Parameters

The other parameters were not as decisive with regards to the outcome of this screening as exclusivity and amount of units sold per year. Nevertheless, they give a more detailed picture of the remaining countries and were therefore included in this section.

Table 4: Shows the price per square meter in US dollars of a 120 square meter apartment located in the center of the most important city of each country and the real estate agency's commissions. All prices per square meter and real estate agency's commissions were fetched from Global Property Guide pages for the respective country (Global Property Guide, 2018).

Country	**Price per square meter ($)**	**Real estate agency's commission**
Argentina	3327	3–4%
Brazil	4370	5–6%
Chile	2771	4%
Colombia	2379	3–4%
Mexico	1852	3–6%

Price per square meter is an indicator of how much an agency would be willing to spend on the advertising of a property, and therefore could estimate the potential earnings for PropTech Inc. Brazil's and Argentina's positions in the table above further solidifies the choice to more thoroughly examine these two countries.

The higher a real estate agency's commission is, the more they are willing to spend on advertising. The real estate agencies' commissions were very similar between the countries, the largest difference was between Brazil and Colombia where the commissions were 5-6% and 3-4% respectively, as can be seen in *Table 4*. Information about the usage of cookies was verified by visiting several websites from different countries. The websites showed that the use of cookies is allowed in all countries. This in combination with the fact that agencies post their listings on their own websites in all countries, lead to no further division of the remaining countries. Information about use of cookies was verified by visiting several websites from the respective countries

6 Results of Survey, Interview and Complementary Data

The purpose of this section is to present the data collected with the purpose to answer the research questions listed in *3.9 Summary of Research Questions*.

Table 5: Shows the objectives for each market and country as well as the actual amount of answers that was received.

	Real Estate Agencies	**Property Portals**	**Real Estate Developers**	**Institutions**
Objectives	*5*	*3*	*3*	*1*
Argentina	5	3	[redacted]	1
Brazil	5	2	3	0
Chile	[redacted]	1	3	0
Colombia	[redacted]	4	2	0
Mexico	[redacted]	3	0	1

In *Table 5* the objectives for the survey for each country and market can be seen as well as the received answers from each country. 33 answers were collected in total, which was pretty close to the total objective of 42 answers. As the Argentinian real estate developers did not fulfill the criteria of having individual page listings of their residential objects, they were not surveyed. Since Chile, Mexico and Colombia were not exclusive markets no real estate agencies were surveyed in those countries.

By looking at *Table 5* it is easy to see that the objective for number of respondents was reached for Argentina. The objective for Brazil was almost reached, but one answer from a portal and an institution respectively was missed. A total of four responses were received from Chile, just three responses less than the objective. Unfortunately, no response was received from an institution and only one from a portal. For Colombia the objective was achieved for the property portals, where four answers were received. From the real estate developers in Colombia two answers were collected but unfortunately none of the institutions responded. A total of four answers were collected from Mexico. Three of them came from property portals (though two of them were from the same portal) and one from an institution. Unfortunately, no replies were received from developers in Mexico.

6.1 Argentina

There are approximately 450 000 properties sold where of 250 000 homes built in Argentina each year. Newly built properties are typically sold with the help of real estate agencies, so the real estate developers do not sell properties themselves. Most home owners use a real estate agency to sell their properties. The residential market is more fragmented than consolidated as there are a lot of small actors. There are however a few big dominating actors on the market as well. The selling process is characterized by exclusive rights to sell properties – the respondents estimate that a rate of between 75-100% of their properties are sold exclusively. Occasionally it can happen that the buyer uses an agency to find a property, which results in the buyer's and seller's agency splitting the commission.

When real estate agencies advertise the properties they almost always use their own website as well as social media. Some agencies always use property portals and others use them sometimes. Other advertisement channels (such as newspapers, TV etc.) are used in various degrees by the different agencies. All surveyed agencies have Facebook pages, four of the five surveyed advertise individual properties on the Facebook page and one of them pay for advertising on Facebook. None of the surveyed real estate agencies wanted to give any numbers on how many properties they sell or how much they spend on advertisement. Most of the responding real estate agencies were estimated to be relatively small actors.

Representatives from two of the largest property portals in Argentina chose to answer the survey. They both have more than 200 000 property listings on their websites. The majority of the properties listed on these websites are from real estate agencies, but a small percentage are also from private homeowners and real estate developers. Both of the portals promote their company using Facebook but only one uses it for paid advertisements of individual listings. The other company offers optional advertisements using traditional media channels, for an extra fee. None of the property portals wanted to reveal how much they spend on advertisements. According to Statista the social media usage of Facebook, Instagram and Twitter in Argentina are 75%, 45%, and 47% respectively (Statista, 2018).

6.2 Brazil

The residential market in Brazil varies a lot in different regions of the country and has different characteristics depending on the size of the city in question. It is not unusual for people in low populated cities to find buyers with very informal methods, such as talking to people without the use of a real estate agency. The right to sell exclusively varied a lot between different agencies. It is common to give the real estate agency the exclusive right to sell the property for a predetermined period of time (often 60 days). If the agency does not find a buyer during that time period, the owner can choose to contact other agencies. Sometimes it can happen that the buyer uses an agency to find a property, which results in the buyer's and seller's agency splitting the commission.

The collected data shows that the residential market in Brazil consist of many real estate agencies, even though there are a couple of them that have a bigger market presence and dominate the market. The results also indicate that there is a mix regarding the structure of these companies, where some of them are owned by a franchise and other maintain a company-owned model. The most common advertising channel among real estate agencies in Brazil are the companies' own website, where the percentage of properties listed varies from 25% to 100%. Property portals are also used to a large

extent (for almost half of the objects), while other digital marketing methods such as marketing through social media (Facebook, Instagram and Twitter) were not so prevalent and only used in 20% of cases. Even though Facebook is not used by all real estate agencies as a marketing method, most companies in Brazil has a Facebook page with contact information where they publish content. Traditional marketing methods such as marketing through newspapers, flyers, radio or TV were also used to some extent but not nearly as much as the other marketing methods. The advertising for the property is always handled and paid for by the real estate agency.

In Brazil, Facebook is used by all property portals as a marketing method for real estate, as well as a page with contact information where they publish content. Paid advertisement on Facebook was also used by one of the surveyed portals. Since the respondents did not provide information about the largest property portal, it was found online. According to Brian Requarth, the CEO of VivaReal, the largest portal in Brazil is VivaReal with more than 4 000 000 listings on their website followed closely by ZapImoveis (Requarth, 2017).

The company structure for most developers is a company-owned model, but there are franchises as well (which is more commonly seen among bigger actors). There are four big real estate developers that seem to dominate the market. The marketing efforts made by the real estate developers is very varied and ranges from an average of 300 to 7500 Brazilian reals (which is equivalent to 750-18600 SEK at the time of writing) per property. The selling process is often handled by the company itself but is sometimes managed by a third party. The most used marketing channel is the companies own website, but other marketing methods such as Facebook, property portals and traditional marketing methods are also used to some extent. According to Statista the social media usage of Facebook, Instagram and Twitter in Brazil are 61%, 24% and 9% respectively (Statista, 2018).

6.3 Chile

In Chile there are many small real estate agencies as opposed to a few big ones, according to all of the sources. Both real estate developers and private home owners use property portals to advertise their properties. Most developers and portals use digital medias like Facebook in addition to traditional medias (like newspapers and TV). The amount of money spent on advertising specific units range from 800 000 CLP to 1 700 000 CLP (11 700 to 24 000 SEK, at the current exchange rate) on average, obviously this depends on the specific unit as well.

As for portals, or more precisely the one portal a response was received from, the amount of listings per year is 500, although that particular portal was one of the smaller ones. No generalization is therefore possible, but it still gives an indication of how property portals operate in Chile. About 70% of the listings come from agencies. Additional advertising outside of the portal is always included. The largest property portal is Portalinmobiliario with more than 50 000 listings in the area surrounding the capital city (Portalinmobiliario, 2018).

There was a wide range of how many units the real estate developers built, ranging up to 3500 units per year in certain cases. All of the companies handle the selling process themselves and make use of their own websites in the process. Apart from their own website all the responding companies also made use of property portals and traditional marketing methods to market their real estate. Social media was also used to a large extent but not as much as the methods above. According to Statista the

social media usage of Facebook, Instagram and Twitter in Chile are 61%, 17% and 19% respectively (Statista, 2018).

6.4 Colombia

According to all of the respondents from property portals, the Colombian residential market consists of many small actors. The amount of listed properties per portal and year range from approximately 50 000 to 103 000 properties. Apart from having a website with individual listings, half of the surveyed property portals offer their clients the possibility to advertise properties outside the website with an additional cost. The usage of social medias varied a lot between the respondents. They all have an individual page with contact information, all of them actively posted advertisements and two of them pay for advertisements. Two of three responding property portals have listings on the website that only come from real-estate agencies. On the third property portal a big amount of the listings come from private homeowners (60%) but also real estate developers (20%) and real estate agencies (20%).

The amount of properties built by real estate developers per year ranged up to 3000 for the respondents of the survey. One of them handles all of the sales of the properties while the other one does it in 25% of cases. It is not usual that the real estate developers are a part of a franchise, it is more common that they are company-owned.

50% of the surveyed real estate developers actively update their own website with listings. Other channels, such as newspapers, TV, radio and even Facebook (where they both had pages with contact information) were also common. One of them also posted content to promote individual homes and used paid advertisement on Facebook. The use of portals varies from company to company where 50% of them uses portals while the other half never use this channel. According to Statista the social media usage of Facebook, Instagram and Twitter in Colombia are 56%, 11% and 13% respectively (Statista, 2018).

6.5 Mexico

Most properties in Mexico's residential market are for sale (86 % are for sale and 14 % are for rent). Newly developed properties are typically sold by real estate agencies and not by the developers themselves. There is some disagreement regarding the characterization of the residential market, but it is most likely to consist of many small agencies based on the survey results. The institution could confirm that properties are nearly always sold non-exclusively.

The responses received from portals came from two of the biggest portals in Mexico. Property portals are widely used in Mexico and real estate agencies are the dominating users of these platforms. The portals use their own Facebook page to promote certain properties and do not pay for advertisements on Facebook. They also offer advertising outside their own webpage, which is optional and up to the customer. Additional information about the largest property portal in Mexico was retrieved online. The largest portal was determined to be RentasYVentas at the time of writing, after examination of the 15 property portals listed on Tecnología Para Inmobiliarias (Tecnología Para Inmobiliarias, 2017), with over 150 000 listings. According to Statista the social media usage of Facebook, Instagram and Twitter in Argentina are 66%, 35% and 20% respectively (Statista, 2018).

6.6 Current Markets

Two markets PropTech Inc. are currently operating in are Sweden and the UK. These countries were used for comparison with the Latin American countries.

6.6.1 Sweden

According to Statistiska Centralbyrån 103 139 residential objects were sold in Sweden in 2016 (SCB, 2017). Global Property Guide states that the average price per square meter of a 120 square meter apartment located in the center of one of the most important cities in Sweden is 8 478 US dollars (Global Property Guide, 2018). According to PropTech Inc., Sweden's real estate agency market is dominated by 5-8 agencies. Further, PropTech Inc. states that the residential market in Sweden consists mostly of franchises. PropTech Inc. also says that the real estate agencies always have the exclusive rights to sell a particular home in Sweden. According to Statista the social media usage of Facebook, Instagram and Twitter in Sweden are 71%, 44% and 18% respectively (Statista, 2018). As stated by Hemnet's website, the biggest portal in Sweden is Hemnet which has approximately 30 000 listings (Hemnet, 2018).

6.6.2 The United Kingdom

According to HM Revenue & Customs 1 235 020 residential objects were sold in the UK in 2017 (HMRC, 2018). Global Property Guide states that the average price per square meter of a 120 square meter apartment located in the center of one of the most important cities in the UK is 24 486 US dollars (Global Property Guide, 2018). According to PropTech Inc., the UK's real estate agency market is dominated by 5-8 agencies. Further, PropTech Inc. states that the residential market in the UK only consists of company-owned firms. PropTech Inc. also says that the real estate agencies always have the exclusive rights to sell a particular home in the UK. According to Statista the social media usage of Facebook, Instagram and Twitter in the UK are 79%, 42% and 48% respectively (Statista, 2018). As stated by RightMove website, the biggest portal in the UK is RightMove which has over 800 000 listings (RightMove, 2017).

7 Analysis and Discussion of Results

The purpose of this section is to discuss the implications of the results from the screenings as well as the survey and interviews in terms of advantages and disadvantages, as well as the reliability of the results themselves.

7.1 Method Discussion

With the large and diverse set of data points that had to be investigated in the study and mainly in the second screening, no single source could provide all of the data. The collected information was thereby obtained from different data sources (i.e. different websites) and credibility of the data differed. Some of the data was also easily found for some countries but could not be found for others. This information skew was identified as a possible source of error for the analysis. Several workarounds were pursued to manage this challenge. Some data that had different units for different countries could be adjusted, for example sold listings in the whole country could be estimated when compared to the largest city. To accommodate for low credibility of some of the sources, questions for a few of the data points were included in the survey as well for verification. Moreover, information that could not be found or had a source with too low credibility was excluded from the analysis.

When searching for potential survey respondents, the limit of 3000 sold units per year for real estate agencies and developers turned out to be hard to take into consideration. This was often due to the sales numbers being hard to find. Additionally, some potential markets appeared to mainly consist of many smaller actors. As the markets themselves were still of interest in other aspects, it was decided that the 3000 unit per year condition would be taken lightly. Besides, PropTech Inc. might in the future start approaching smaller real estate agencies once the bigger and more profitable potential customers have already been signed on.

Moreover, since macro factors were not analyzed in detail, there are some overarching trends that might have been missed like inflation/deflation in the economy, political structures or cultural forces. An example of this is the newly increased interest rate of the central bank in Argentina according to Ryan Dube and Julie Wernau in the Wall Street Journal (The Wall Street Journal, 2018), which would put Argentina's already high interest rate at place number two in Latin America, just after Venezuela. This can lead to fewer house being purchased in the country because of the higher rate on loans, which clearly makes Argentina less attractive for PropTech Inc. These types of macro factors were not covered in the scope of the study, but they could have been investigated to get a deeper and more accurate picture of the markets.

For the survey, one thing that was discussed and decided upon was to mostly pose questions as “How does your company ...?” instead of “How does the market ...?”. The later alternative makes it easier to generalize the market characteristics even with a small amount of answers, something that would benefit the discussion. On the other hand it can be argued that the companies have better knowledge about how they operate than how the market works, which makes the data acquired more reliable with the first option.

However, it can be discussed whether the amount of answers that were gathered really gives an accurate representation of reality. 33 answers were collected from the surveys in total, but whether or

not this is enough to draw any conclusions from is up to debate. One might say that it is not enough but it does in some way give insights into what the different markets look like. The respondents of the surveys had substantial knowledge about the residential markets, as they all are working in that industry, which made the answers trustworthy. In some cases however, the answers were heterogeneous and there was some disagreement about the markets. This made it hard to determine which data was true. To hedge against these uncertainties, these aspects were taken with more caution in the discussion.

7.2 Residential market

The discussion about the implications of the results were divided into two parts, where the first part is about the residential market.

7.2.1 Market Size

Data about sold listings per year could not be collected from the survey (except for Argentina). Sometimes this was because the respondent did not know the answer to this question and other times there were no respondents that replied. Collective data about sold listings per year may not even exist in some of these countries. Therefore, the data on sold listings per year at *Table 2* in *5.2.1 Sold Listings per Year* could not be verified. Number of sold listings per year for those countries which had this data (not just data of the biggest city) from the second screening along with data gathered from the survey and data from *6.6 Current Markets* is compiled into *Table 6* below.

Table 6: Shows the number of sold units per year in each country. The table also shows units sold per capita in percentage, which were calculated by dividing units sold with the population for each country. Data on population was gathered from Nationalencyklopedin.

Country	**Units sold**	**Sources for units sold**	**Units sold per capita in percentage**
Argentina	450 000	Survey	1,016 %
Brazil	105 300	Belson, 2017	0,050 %
Chile	31 934	La Tercera, 2018	0,174%
Mexico	626 358	El Economista, 2018	0,484 %
Sweden	103 139	SCB, 2017	1,021 %
UK	1 235 020	HM Revenue & Customs, 2018	1,866 %

Table 6 shows that in Argentina, Brazil and Mexico more units are being sold per year than in Sweden. Since these three countries have more listings per year than Sweden, one of the countries

PropTech Inc. is currently operating in, they all look like having a promising market in this aspect. Brazil is suspected to have more than 105 300 listings per year since, which is illustrated in *Table 6*, units sold per capita in percentage for Brazil is far less than the other countries. Data regarding sold listings per year in Colombia was not retrieved and is therefore not displayed in the table above.

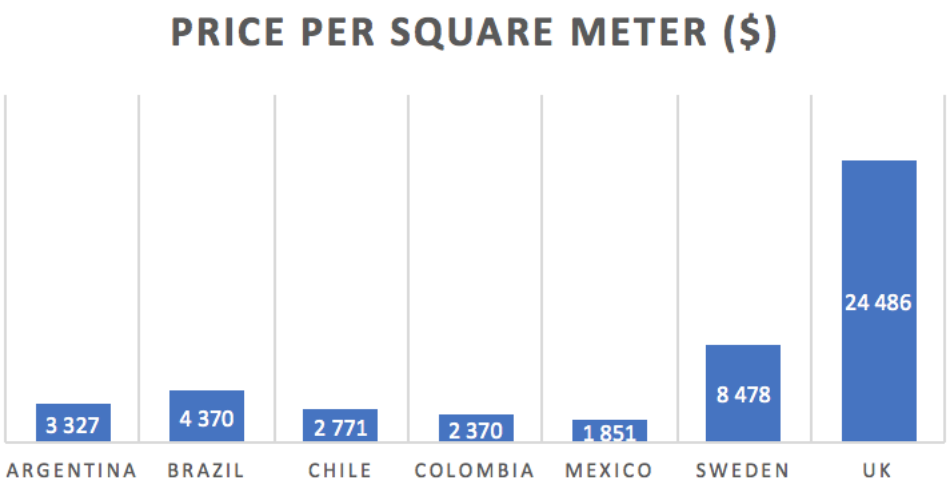

Figure 6: Shows average per square meter price in US dollars of a 120 square meter apartment located in the center of one of the most important cities for each country. All data is gathered from Global Property Guide.

Data on price per square meter from *5.2.3 Other Parameters* and *6.6 Current Markets* are compiled into *Figure 6* above. *Figure 6* shows that all five Latin American countries have a significantly lower price per square meter than the two countries PropTech Inc. are currently operating in. Argentina and Brazil have the highest price per square meter while Chile, Colombia and Mexico have the lowest among the Latin American countries.

Argentina and Brazil looked promising in the aspect of sold listings per year and also had the highest price per square meter. Therefore, Argentina and Brazil are highly prioritized in the aspect of market size. Chile, Colombia and Mexico are however set to low priority. Chile and Colombia were set to low prioritization due to their price per square meter being among the lowest. Even though Mexico had a lot of listings per year it was set to low prioritization because it had the lowest price per square meter out of all the surveyed countries.

Number of sold listings per year is missing for some countries and the quality in the data were also in some cases bad. Argentina and Brazil were set to high priority even though they had a much lower price per square meter than Sweden and the UK. Altogether, the prioritization in market size is highly uncertain and the recommendation is therefore based less on market size than the other aspects.

7.2.2 Market Structure

The market structure is important to take into account while determining which countries that suit PropTech Inc. to the highest degree. According to PropTech Inc. a country with a few dominating actors is more appealing because it takes less time and resources to enter a market of this type. It is

then easier to build up stronger relationships with a few large companies in comparison to companies in a more fragmented market. Another negative aspect with smaller agencies in fragmented markets is that they do not have the same budget when it comes to advertising, thus making them less attractive for PropTech Inc.

When analyzing the results from the surveys with respect to the market structure, a few countries looked more promising than others. *Figure 7* shows what the structure of the residential market looked like in each country including Sweden and the United Kingdom. According to the results most of the markets in Latin America could be described as fragmented with many small real estate agencies. This not only included Chile and Colombia but also Mexico. All of the respondents in the surveys from Mexico answered differently though and therefore there seem to be some disagreement regarding the market structure, but according to the majority of the answers the market is relatively fragmented. Brazil and Argentina looked a bit different with a higher level of consolidation of the market. The markets were described as consisting of several small agencies but also a few big dominating actors as well.

Figure 7: Shows the estimated degree of consolidation/fragmentation of the real estate agency markets based on survey responses and information provided by PropTech Inc.

When comparing the countries in Latin America to Sweden and the United Kingdom there is a slight difference. Sweden and the United Kingdom are more consolidated than the markets in Latin America. Two of the countries (Brazil and Argentina) looked more similar to the market structure of the two references and PropTech Inc.'s current markets. Argentina and Brazil were therefore set to be highly prioritized in this aspect due to the stronger relationships that comes with a consolidated market. Another reason that has been mentioned before is also the bigger profits for PropTech Inc. that comes with companies that possesses a big market share, because according to PropTech Inc. they tend to spend more money on advertising. Mexico, Colombia and Chile got a low prioritization due to the fragmented markets.

Whether a firm has a company-owned or franchise business structure does not affect PropTech Inc. as much as the other factors. PropTech Inc. works with both franchises and company-owned firms. However it is still interesting to analyze due to the current markets. As previously mentioned, according to the CEO of PropTech Inc. a company-owned firm's management makes decisions over the marketing in all parts of the company. This makes it easier for PropTech Inc. because they only have to talk to the highest decision maker in the firm when offering the product, and this can lead to stronger relationships with more profitable customers. However this also tends to lead to a bigger decision over the whole firm, which in most cases leads to a longer time for the company to decide whether to adopt the product or not. In the case of a franchise owned model PropTech Inc. has to sell in the product in every small office which decentralizes the decision-making and leads to less pressure

over the decision. Therefore each decision tends to go faster in franchises than in company-owned companies. When deciding which structure that is best to work with for PropTech Inc. it is usually mostly just about preferences, however in certain situations one can be more favorable. When they want to enter a new market they prefer firms that are company-owned. This is because they want to take the new market by storm and it is easier to do so by only having to convince the highest decision maker, which leads to a high level of speed when entering the market. In comparison it is harder to take the market by storm with a franchise where more decisions have to be made before the entire company has adopted the product.

Figure 8 shows the percentage of franchises among the respondents in the different markets in each country. The results from the countries in Latin America show that it varies a lot between different countries and markets. For real estate agencies in Argentina and real estate developers in Colombia it is most common to use a company-owned structure, as 100% of the respondents used this type of structure. Franchises are more common among the real estate developers in Brazil and Chile, where almost one third of the actors have this market structure. The market which had the largest amount of franchise owned firms was the residential market in Brazil.

The two reference countries: Sweden and the United Kingdom looked different in this aspect too. According to PropTech Inc. the residential market in the United Kingdom only consisted of company-owned firms, in contrast to Sweden, where the majority of the firms were franchises. Therefore, all the markets in Latin America could in some way fit PropTech Inc. but since they prefer markets with company-owned firms during a new market entrance some markets looked more promising. The most interesting markets in this aspect were the real estate agencies in Argentina and the real estate developers in Colombia, which is the reason why they are highly prioritized in this regard. Both the real estate developers market in Brazil and Chile got a medium prioritization, and the real estate agencies in Brazil got a low prioritization because of the lower degree of company-owned firms on the market.

Figure 8: Shows the amount of franchises among the respondents in the different markets in each country. The data was gathered from the surveys that was sent out to each country.

Lastly what must be discussed is the presence of agencies in Argentina and Brazil that help buyers find an adequate property, referred to as buyer's agencies. As mentioned this is something that does not exist in any of the markets where PropTech Inc. currently operates and is therefore something foreign for them. After having conducted the survey there are still some uncertainties surrounding the topic. However, what can be concluded is that buyers in Argentina and Brazil only occasionally use an agency and that seller's agencies still often spend on advertising directly targeted at buyers. This means that the presence of buyers' agencies does not pose as any big risk and thus will not affect the recommendation.

7.2.3 Exclusivity

Out of the countries surveyed, Argentina was the only country where exclusivity is very common. Judging from what the respondents answered it seems as if agencies get exclusivity in over 75% of cases, thus being more prevalent than previously thought. Exclusivity does seem to occur in Brazil as well but the responses were much more mixed, thus classifying it as a semi-exclusive country as previously. An institution in Mexico could confirm that the country is non-exclusive but unfortunately this was not the case for Chile and Colombia, where no response from an institution was gathered. Nevertheless, the secondary sources from the second screening are still used to assume that Chile and Colombia in fact are non-exclusive countries, as the sources are deemed as trustworthy.

Table 7: Level of exclusivity in each country.

Country	**Exclusivity**
Argentina	Mostly exclusive
Brazil	Semi-exclusive
Chile	Non-exclusive
Colombia	Non-exclusive
Mexico	Non-exclusive
Sweden	Exclusive
The United Kingdom	Exclusive

As mentioned earlier, exclusivity has so far been a key factor for PropTech Inc. and their core customers are real estate agencies in exclusive countries such as Sweden and the United Kingdom. The reason why non-exclusive countries have still been included in this study is because it is possible that the company expands in the future and even starts selling their product to portals and real estate developers, which are not affected by exclusivity in the same way (read section *5.2.2 Exclusivity* for more details).

The impact that exclusivity has on advertisement cannot be overstated and is therefore something that this study must take into account. As stated by this study's contact person from PropTech Inc., speed is the company's highest priority when expanding. When they enter a market, they want to do so with a velocity that allows them to become the market's default choice for potential customers before competition can catch up. The way they see it, the main problem with entering a non-exclusive market is not being able to develop a value proposition that suits the market and is profitable, but the fact that the variation will cause the company to slow down their speed. PropTech Inc. therefore prefers to continue focusing on countries with exclusivity for as long as possible in order to maintain their speed.

From this perspective, Argentina and to a lesser extent Brazil are thus the most suitable countries for PropTech Inc. to enter at the current stage. As observed while interviewing the professional working at a real estate agency in Mexico, PropTech Inc.'s perception of how exclusivity affects the real estate agencies' incentives for publicity seems to be applicable in the rest of Latin America as well and thus be a factor that would very likely cause their speed to slow down. However, once the company gets to the stage where they are ready to enter non-exclusive markets, Chile, Colombia and Mexico could also become countries worth consideration.

7.2.4 Property Portals

A widely used portal can be useful for two reasons. The first one is the most obvious, they could be PropTech Inc.'s customers. PropTech Inc.'s product can give additional functionality to any portal, allowing them to offer automatic advertisements on Facebook in addition to whatever services they are offering right now. Advertisements created through PropTech Inc.'s product will lead people back to the portal's website and that way increase traffic which according to PropTech Inc. is the goal for most portals. The other way is that a powerful portal could be used as a bargaining tool when approaching real estate agencies. In this case a portal is powerful when they have very high traffic in comparison to agencies and many of the listings on the portal are made by agencies, meaning that agencies need the portal for visibility. This creates a situation where the agencies are dependent on property portals. PropTech Inc.'s product can in those cases be an attractive alternative to real estate agencies by giving them another marketing channel, Facebook, and therefore diverting power away from portals and into the hands of real estate agencies. In both cases however, a larger property portal would be to PropTech Inc.'s benefit since having a larger portal as clients is generally more profitable for PropTech Inc., as well as the fact that the larger a portal is, the more likely it is that agencies are dependent on them.

There are benefits to both approaches. The main benefit of having the portals as a customer is that homeowners who post listings on the portal have incentives to advertise their object, regardless of whether the market is exclusive or not. In the case of property portals being the customer, the buyer's journey is shorter if the portal is mainly used by property owners compared than if it is mostly used by real estate agencies. Instead of having to go through an agency when buying advertisements, the customers could automatically receive an offer to advertise on Facebook through PropTech Inc.'s product when listing their real estate on the portal. This is a benefit to PropTech Inc. as more involved actors makes the decision of using their product more complex.

On the other hand, using a portal solely as a bargaining tool when dealing with agencies is beneficial from the perspective of speed. PropTech Inc. currently does not have any portals as customers and speed of entrance when taking on a new market is a high priority. Minimizing adjustments to the

product offering is therefore vital for maintaining speed, which makes property portals less attractive than real estate agencies in this regard. Using a portal as a bargaining tool, however, is only relevant in exclusive markets, since the incentive to use the product by individual agencies is not as strong in non-exclusive markets. This leaves only one option, having portals as customers, for countries where there is no exclusivity, which is why this discussion will be different based on the country's exclusivity. As Argentina seems to be mostly exclusive, it will only be discussed from the perspective of using portals as bargaining tools, since PropTech Inc. prefers working with real estate agencies as they have so far done. Brazil is semi-exclusive and will thus be treated from both the perspective of an exclusive and non-exclusive country in the coming discussion.

In the case of Argentina, the property portals seem powerful. The surveyed portals were some of the largest and two of them had over 200 000 listings. Most of the listings were made by real estate agencies (75-99% according to survey responses) which as discussed earlier, means that agencies do need the portals for visibility. With that said it is clear that the portals could most definitely be used as a bargaining tool when approaching real estate agencies. Argentina is therefore very similar to PropTech Inc.'s current markets and requires very little adjustments of the product offering. From this perspective, this means that real estate agencies in Argentina should be highly prioritized when planning an entrance into the Latin American market.

As for the non-exclusive and semi-exclusive markets marketing budgets are important in order to be able to make an informed decision about taking on portals as customers, in addition to listings per year and the distribution of portal users. Unfortunately, many portals were reluctant to provide such information making this part of the discussion less conclusive. The most important factor is still volume though and fortunately some data from earlier stages was still available.

Table 8: Largest portals in each country together with the number of listings in these portals. All numbers except for the portal in Colombia were the amount of listings currently posted at the time when the portal was accessed. For the Colombian portal, the am amount of listings was taken from a survey respondent and equal to the amount of listings posted during an entire year.
** The respondent is most likely not the largest in the country, but relatively close.*
*** In the capital city, including surrounding area.*

Country	**Largest portal**	**Number of listings on the portal**
Brazil	VivaReal	More than 4 000 000
Chile	portalinmobiliario	50 000**
Colombia	Anonymous respondent*	103 000
Mexico	RentasYVentas	More than 150 000
Sweden	Hemnet	30 000
The United Kingdom	RightMove	800 000

As can be seen in *Table 8*, Brazil seems very promising when looking at the amount of listings. Unfortunately, no information on the distribution of users was received from the portals surveyed. This makes it difficult to estimate how much agencies have to rely on the portal for visibility, but since the amount of listings is so high it is fair to assume that most agencies do use the portal for visibility. This leads to a difficult situation where a choice has to be made between having the portal as customer or using it as a bargaining tool when talking with agencies. Both options are not possible simultaneously since there is a conflict of interest. Selling the product to real estate agencies will not work if PropTech Inc. is also giving the portal access to their product since the whole pitch is that they divert internet traffic back to the agencies, making it difficult to build strong business relationships with both parties. Based on the large amount of listings and the fact that Brazil is only semi-exclusive, the better choice is most likely to go with portals as customers in Brazil instead of agencies. Overall Brazil should be a medium priority since portals are not the primary customers for PropTech Inc. at the moment and their focus is largely on speed, as discussed earlier.

Mexico and Colombia also seem relatively interesting, with the amount of listings ranging from 100 000 to 150 000 as can be seen in *Table 8*. Another important reason is because they already offer advertising outside of the portal to their customers for an additional fee. The logic here is, once again, that the extra step the customer has to take in order to use PropTech Inc.'s product is smaller and therefore more likely, but also that the portal itself has to make less adjustments to incorporate PropTech Inc.'s product. Portals in both countries also used Facebook to a large extent which would also be helpful in selling them on the idea of implementing PropTech Inc.'s product. The distribution of portal users is one factor that speaks for putting Colombia slightly ahead of Mexico. According to one source, up to 60% of the listings come from private property owners in Colombian portals, which is very high in comparison to the other markets, while the same data for Mexico is inconclusive. On the other hand, Mexico has more listings on their portals.

From this perspective, this would make both countries medium priority since they do seem promising but not as promising as Argentina or Brazil. As for Chile it is difficult to give a good prioritization since the responding portal only had 500 listings making it difficult to generalize the data. One portal which is thought to be the largest has 50 000 listings in the capital city (with surrounding area). This is already more than the 30 000 in Sweden making Chile a perhaps viable but uncertain market, which is why it is deemed a low priority.

7.3 Advertising and Social Media

The second part of the discussion about the implications from the study's results is about advertising and social media.

7.3.1 Advertising

By analyzing the extent to which the surveyed countries use the marketing methods listed in the table below, several conclusions can be drawn regarding the attractiveness of the country and how suitable it is for a market entrance for PropTech Inc. The current advertising strategy for companies operating in the residential market also gives a good indication of their willingness to pay for a new advertisement tool such as the one that PropTech Inc. offers.

Table 9 below shows to which degree real estate agencies in the surveyed countries use different advertising channels on average. The size of the companies is not taken into consideration when calculating the numbers which could be misleading, on the other hand it gives a good indication. As previously mentioned, since Argentina and Brazil were the only countries with an exclusive or semi-exclusive market they were the only ones surveyed in this regard.

Table 9: The table shows to which degree real estate agencies in the surveyed countries use different advertising channels.

Country	**Companies´own website**	**Property portals**	**Marketing through social media**	**Traditional marketing methods**
Argentina	83 %	58 %	75 %	42 %
Brazil	57 %	50 %	40 %	20 %

As can be seen in the table above the most prominent marketing media used by real estate agencies in Argentina and Brazil is to market through their own website. This aspect is of great importance to PropTech Inc. since their product cannot be used on real estate that does not use this advertisement channel. Apart from the companies own website other marketing methods are also used to some degree, property portals and marketing through social media being more common than using traditional marketing methods. A common trend that can be seen in the table above is an indication that real estate agencies in Argentina focus on advertisement for their properties more than their counterparts do in Brazil. This makes them more attractive to PropTech Inc. in this aspect since they will more likely understand the value created by their product.

Table 10: The table shows to which degree real estate developers in the surveyed countries use different advertising channels. Since Argentina did not have real estate developers with websites meeting the requirements for PropTech Inc.´s product they were not surveyed.

Country	**Companies´own website**	**Property portals**	**Marketing through social media**	**Traditional marketing methods**
Brazil	67 %	50 %	50 %	50 %
Chile	100 %	100 %	50 %	100 %
Colombia	50 %	50 %	75 %	75 %
Mexico	No Answer	No Answer	No Answer	No Answer

The collected data shows that the country where the real estate developers make the most marketing efforts is Chile. The companies surveyed use all the marketing channels to advertise all their real estate except marketing through social media. This poses an opportunity for PropTech Inc. to introduce their product in this market since the companies clearly make big marketing efforts but do not use social media to its full potential. On the other hand, this could be an indication that social media is not used as much for advertisement which makes the country less attractive.

Real estate developers in Colombia and Brazil do not advertise their residential objects as much as Chile and are therefore not prioritized as high. This conclusion is reinforced when taking into consideration the extent to which they use their own website to market their real estate which is 67% for Brazil and 50% for Colombia.

7.3.2 Facebook and other Social Media

As previously mentioned, PropTech Inc.'s product is currently used to advertise through Facebook, Instagram and Twitter. A high degree of activity on these platforms is therefore necessary for PropTech Inc. to be successful in a specific market. *Figure 9* below shows the usage of these platforms in the different countries. Compared to Sweden and the United Kingdom, the Latin American countries seem to have a lower degree of social media usage in general (Argentina being the exception). The Facebook usage is however quite high for all the researched countries, the lowest being Colombia with a share of 56%. For Instagram, Argentina is the only Latin American country that has a usage on the same level as the two current markets (45% compared to 44% and 42%). Mexico also comes relatively close having 35% of the population using Instagram. The other countries display an Instagram usage of 24% or less. An Instagram usage this low implies that if there is a future expansion to Brazil, Chile and Colombia, then the alternative to advertise through this channel might not be needed.

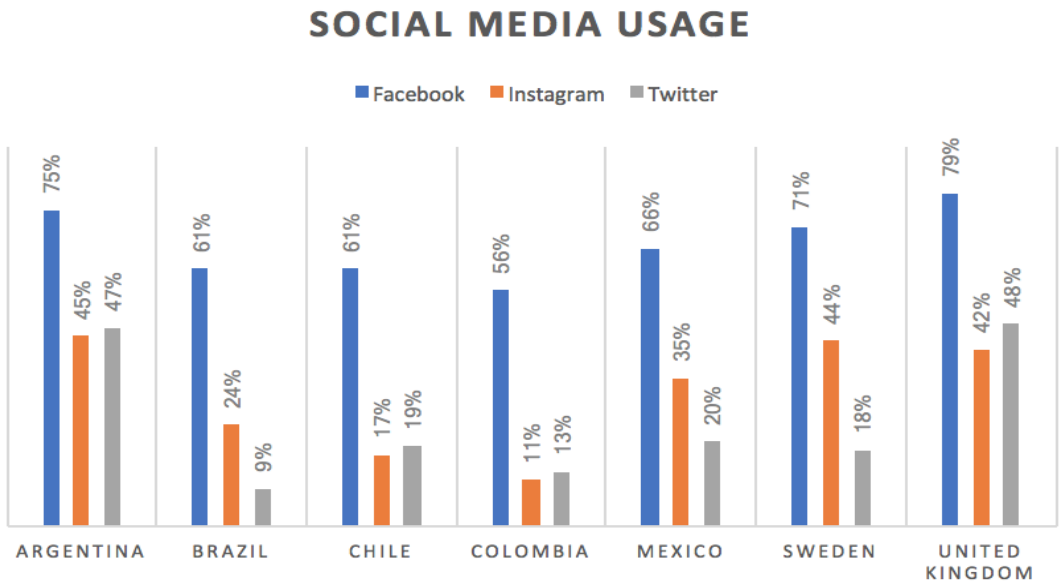

Figure 9: Shows usage of social networks in percent of population. All countries show data from 2016, except the United Kingdom which is for 2018. The data, which can also be read in part 6 Results of Survey, Interview and Complementary Data, was collected from Statista.

As for Twitter, the current markets, Sweden and the United Kingdom, have a large difference in usage (18% and 48%, respectively). This shows that even a country with a low Twitter usage like Sweden could be relevant for PropTech Inc. Argentina's use of Twitter is on the same level as that of the United Kingdom, while Chile's and Mexico's are at the same level as Sweden's. Brazil and Colombia both display a much smaller share of Twitter usage among the population than Sweden. The implication here is that if PropTech Inc. chooses to expand to these two countries, including the option to advertise through Twitter might not be viable.

As Facebook is the most popular platform for PropTech Inc.'s current customers and all of the surveyed countries have a steady base of Facebook users, this analysis shows that all the surveyed countries are suitable for expansion in the aspect of social media usage among the population. The following analysis will dive deeper into the different potential customers' use of Facebook as an advertisement channel in the researched countries.

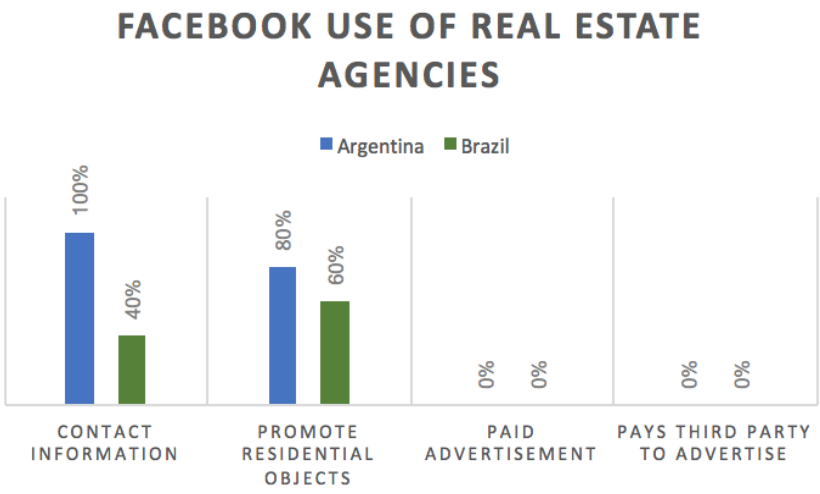

Figure 10: Shows how the surveyed real estate agencies use Facebook.

Figure 10 above shows that most real estate agencies in Argentina and Brazil promote residential objects on their Facebook pages. Doing this makes them more attractive to PropTech Inc., as their product will then be able to help them do exactly this in a more efficient manner. None, however, currently use any kind of paid advertisement on Facebook. This could mean that there is an untapped potential of using paid advertisements through Facebook on these markets, which would benefit PropTech Inc. It could also mean that there is no interest in using paid advertisements through Facebook, which would translate to high entry barriers for the real estate agencies to adopt PropTech Inc.'s product.

Moving on to the real estate developers, they seem to be more mature in their use of Facebook as an advertisement channel. As can be seen in *Figure 11* below, most of them promote residential objects and some pay for advertisements. This is a positive sign as they are already willing to pay for advertisements through social media. Moving to optimize their advertising efforts on Facebook with PropTech Inc.'s product will therefore be a smaller step.

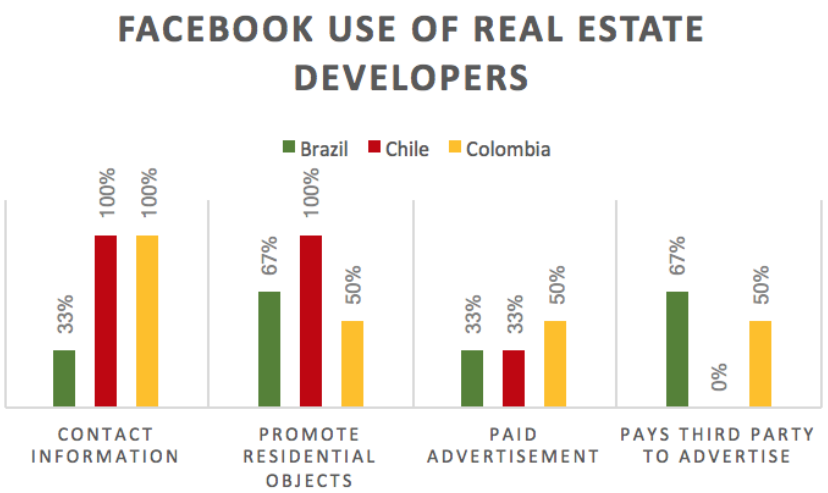

Figure 11: Shows how the surveyed real estate developers use Facebook.

Figure 11 also shows that some real estate developers in Brazil and Colombia pay a third party to advertise for them on Facebook, which implies that there is some form of competition to PropTech Inc. on these markets. Further information about these actors is required to make a deep analysis of the threats of competition, but it can be safely stated that this fact lowers the chances of PropTech Inc. receiving first-mover advantages on these markets.

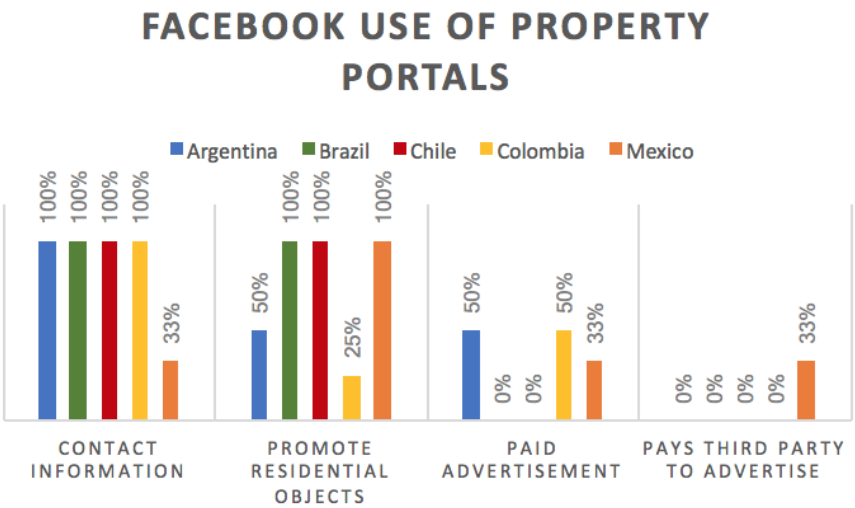

Figure 12: Shows how the surveyed property portals use Facebook.

Most property portals seem to promote individual listings through Facebook, which can be seen in *Figure 12*. As with real estate agencies and real estate developers, this is a benefit to PropTech Inc. as they are already willing to do this to generate traffic to their website. Some property portals in Argentina, Colombia and Mexico even use paid advertisements on Facebook. The property portals often charge the real estate agency or homeowner responsible for the listing for this extra service (as

presented in *6 Results of Survey, Interview and Complementary Data*). This is also what they would probably do as a customer to PropTech Inc., as the seller of the residential object is the one who has the incentives to advertise.

To summarize, the Argentinian market looks promising in the aspect of Facebook use for real estate agencies, but not as much for property portals. From this perspective the real estate agencies in Argentina should therefore set as high priority and property portals as low. The property portals in Brazil on the other hand are high priority, as all of the portals promote residential object. Brazil's real estate agencies and real estate developers are set to medium as the numbers are lower. Chile looks promising for both real estate developers and property portals, which should be high priority. The portals in Colombia do not seem to promote residential objects in a high degree, but their real estate developers do so they are higher on priority. As for Mexico, all the surveyed property portals advertise residential objects on Facebook and are thus suitable customers to PropTech Inc.

7.4 PropTech Inc.'s Internal Aspects

PropTech Inc.'s current business strategy is to focus on growth over generating profits. Their short-term objectives are therefore to increase their market share in their current markets. To quantify this they set quarterly target goals for revenues. They also have a long-term goal (over a four-year period), which is to expand to new markets. A market expansion to Latin America is therefore perfectly aligned with the company's current strategy and goals.

As for the financial situation, PropTech Inc. has recently secured a 50 million SEK investment as a Series A funding. They are profitable in their current markets, but as they are in an expanding state they do not currently make any profit as a whole. PropTech Inc. is not worried though and states that the Series A investment is sure to cover these losses and fund a potential expansion to Latin America.

PropTech Inc. has their head quarter in Sweden with the CEO, management and an HR team. They also have a centralized engineering team. The marketing function is decentralized as the markets they operate in are so different, which means that every local PropTech Inc. office has this function. The sales force operates from the head office, but they have local contacts called Key Account Managers for all the customers. To help the customers in their marketing efforts, for example in how to communicate the value of social media, they have Customer Success Managers. The organizational structure is seen as positive in regard to market expansions as the team needed on a local level is not that big. It would therefore be relatively easy for PropTech Inc. to open an office in a new market.

Figure 13: Shows PropTech Inc.'s organizational structure in their local offices.

PropTech Inc. has strong skills within marketing and social media, as well as the technology behind their product. For every country they are active in they have an employee who is experienced and has a very good knowledge about the residential market. This kind of knowledge will also be needed for Latin America. They currently lack language skills in Spanish and Portuguese as well as people that possess knowledge about the Latin American culture. PropTech Inc. will therefore need to hire salespeople who possess this kind of knowledge and experience to perform well in Latin America. They also do not have any international customers who are active in the region, so there are no current connections that they can start building their market share on. The best option may then be to open one or several new offices in the Latin American region. In that way, they can more easily hire natives who know about the residential market and get closer to their customers in the region.

7.5 Sustainability

The following section discusses how an expansion to Latin America would affect society from the point of view of sustainability. As an ITC product, PropTech Inc.'s product will mainly contribute to a sustainable development through its immaterializing and dematerializing effects, as described by Bohlin, but the other dimensions of sustainability are also discussed (Bohlin, 2001).

The market penetration of the product in the studied countries could by substituting traditional marketing methods decrease the use of non-reusable material since the marketing process would be done through the internet. The extent to which these effects will have an impact on the ecological sustainability are hard to quantify since the data required was considered to be outside of the scope of the study. On the other hand, it can be argued that the impact that PropTech Inc. will have on the ecological sustainability is closely linked to the extent to which the country uses traditional marketing methods. A country where marketing through social media and property portals is common practice is not affected by the introduction of a new product such as the one that PropTech Inc. offers, making the more digitalized countries less positively impacted from an ecological point of view by the entrance of PropTech Inc.

When analyzing the studied countries it could be seen that Chile and Argentina would not be affected to a large extent by PropTech Inc.'s market entrance from an ecological standpoint, since most companies commonly use digital marketing method. Brazil and Colombia on the other hand are more prone towards using traditional marketing methods, even though they spend less money on advertising on average, leading to there being less room for ecologically sustainable improvement.

From a social sustainability standpoint, an analysis of the impact that the company has from a point of view of justice is of relevance. The product offered by PropTech Inc. makes it possible for real estate agencies with a low marketing budget to reach a wide amount of people without having to pay for more expensive substitutes, such as using traditional marketing methods. By allowing brokers with varying marketing budget reach a wide range of people the marketplace becomes more fair, which increases the social sustainability. On the other hand, PropTech Inc. is only interested in having customers with more than 3000 listings per year, which may reduce the social sustainability.

Another aspect of relevance when analyzing social sustainability is the employment rate and how PropTech Inc. may affect it when entering the market. As previously mentioned, the emerging marketing methods in the marketing of real estates are substituting traditional marketing methods, such as printing flyers or making TV-ads. People working on the current market in these countries face unemployment which could exert pressures on societies. On the other hand, according to Teppayayon and Bohlin, it has been observed that job gain in the green energy economy has helped reduce total job losses in conjunction with ITCs and a change towards an information society, which would reduce or even negate the negative impact (Teppayayon and Bohlin, 2009). Helping out with the transition towards a digitalized society might however increase people's dependency of social media and force people to use it, as well as excluding people that do not want to use this technology.

The social sustainability can also be connected to the ethics of data usage. A necessity for the product to work is the vast amount of data created by prospective home buyers visiting the real estate agencies' webpages. The product uses all of this data to create tailor-made advertisements to both people who have previously visited the webpages and people who have not. Even though there are countless of companies that analyze (private) data to create value, it is still questionable whether or not it is ethical to capitalize on this information. Another negative ethical aspect is that the product utilizes a platform that causes serious harm to both single individuals and the society as a whole. Social media, that is. It has according to Regidi been proven that excessive use of social media has several negative consequences (Regidi, 2017). Regidi states that it increases the risk of suicide, reduces quality of sleep, destroys focus, hinders people from being productive and more. He further explains that use of social media releases dopamine in the brain, the same chemical that is triggered in alcohol, gambling and drug addicts. Even though the product is not a direct harm in this way, it is in fact dependent on social media. These two negative ethical aspects lowers the social sustainability of PropTech Inc.'s market expansion.

To answer whether or not the Latin American expansion of PropTech Inc. is going to be economically sustainable is closely related to the purpose of the study, since an attractive market would increase the profits for the company. Therefore, if there are any markets worth entering for PropTech Inc., the product is assumed to be economically sustainable.

The Latin American expansion of PropTech Inc. will most likely have both positive and negative implications from a sustainability standpoint. To explore the magnitude of the discussed implications

requires much work that was not included in the scope of this study. Therefore, because of the lacking data, the recommendation is only vaguely based on the discussion above.

8 Recommendation

As previously mentioned the main focus of PropTech Inc., when taking on a new market, is speed of expansion. This translates into two main factors to pay attention to when evaluating a potential market. These are the number of units sold by real estate agencies or real estate developers selling more than 3 000 real estates per year and exclusivity on the market. Markets that excel in these two aspects are therefore highly prioritized. There are of course additional criteria that have to be fulfilled, and are evaluated in the discussion, but these two are the main ones. Only looking at these two factors could lead to missing potential opportunities, as well as the risk of overestimating a market's potential. Internal aspects did not affect the prioritization of the countries since they would have the same impact on all countries. As seen in the discussion some countries have prospering portals, which could with minor adjustments become very suitable customers. Lastly, there are some markets that currently are not particularly noteworthy but could in the future turn out to be markets worth to consider due to either changes in the market or PropTech Inc.'s product offering. The recommendation will therefore be split into three categories:

- High priority markets. They look very promising and similar to the current markets.
- Medium priority markets. They look promising but not very similar to current markets.
- Low priority markets. They do not look very promising nor similar to current markets, right now.

8.1 High Priority

Based on the study's findings, there are two market segments that should be highly prioritized: Argentina's real estate agencies and Brazil's real estate developers. When looking at the market size, Argentina had the second largest amount of units sold and second highest price per square meter among the Latin American countries examined. In addition, the market seemed to be relatively consolidated, this means that there should at least be a few agencies that sell more than 3 000 units every year. Furthermore Argentina had the highest degree of exclusivity out of all the countries surveyed. Since it does fulfill both main criteria, Argentina's real estate agencies should be considered as high priority. Other factors speaking for Argentina is that it does have strong portals that can be used as bargaining tools when approaching agencies, advertising efforts by agencies are high and social medias are widely used (even more so than in Sweden).

Since the residential market in Brazil is semi-exclusive, real estate agencies in this country are not highly prioritized. The real estate developers on the other hand do have full exclusivity on their own real estates which makes them more attractive. Although PropTech Inc. currently does not have any developers as customers they are virtually identical to the current customers in the sense in that they sell the properties the same way real estate agencies do, and therefore do not require any significant adjustments to the product. Brazil as a country does however only have over 100 000 residential objects sold every year (although this number seems unreasonable and is most likely higher). What does make it interesting, is that there are four real estate developers that comprise a large percentage of the market. This means that both criteria for being a high priority country are fulfilled. Although advertising in Brazil is on a relatively low level, the real estate developers use Facebook fairly often, just like the rest of the population. Another thing speaking for entering this market is that PropTech

Inc. would have a positive impact from an ecologically sustainable point of view in Brazil, since this country has the most room for sustainable improvement regarding advertising methods.

8.2 Medium Priority

Market segments that do look promising, but are not similar to PropTech Inc.'s current markets, are the property portals in Brazil, Colombia, Mexico and possibly Chile. Once the necessary adjustments have been made to the product an entrance into the segments consisting of property portals is reasonable. The reason for them not being highly prioritized is that PropTech Inc. needs to enter the market with speed. The portals in Argentina are not included because Argentinean agencies are already in the high priority category. Since portals and agencies can be seen as competing actors, going after the portals in Argentina would cause a conflict of interest and therefore lead to difficulties in building strong business relationships between PropTech Inc. and the agencies. They are therefore not assigned a priority. Another market that is promising, though, is the one consisting of Brazilian agencies. It is also not necessarily similar to current markets, since Brazil is only semi-exclusive.

Brazil seems to have the most promising portal, with the amount of listings reaching over 4 000 000. In comparison with the United Kingdom's 800 000 listings, which was the largest market on which data was received, Brazil's 4 000 000 seems like a lot. Additionally, other factors such as the portals' usage of social medias and advertising seem favorable. In contrast to the real estate agencies of Argentina there is no conflict of interest since portals and real estate developers are not competing against each other. The conflict of interest does arise once again though, since an argument can be made for having Brazilian real estate agencies as customers. Although the market is only semi-exclusive many of the deals could still be made exclusively and the market is the most consolidated out of all the countries researched in Latin America. On the other hand, the agencies do not advertise as much as Argentina on both Facebook and traditional medias, and there are not as many listings sold every year. There is a hidden benefit of the semi-exclusivity though, since many of the deals where exclusivity is granted are time-limited. This puts extra pressure on the agency to sell the property in that time-frame, and therefore there is an incentive to advertise more aggressively. This does make PropTech Inc.'s product more attractive. Which one of those two segments to choose is left for PropTech Inc. to decide though, perhaps from their internal skills.

Neither Colombia nor Mexico have the same problems as Argentina since real estate agencies there are not of interest. Based on the amount of listings on the largest portal they are not prioritized as highly as Brazil (if it is possible to enter) but could still be profitable and worth considering in the medium to long term. If they are looked at as a way to get access to a large amount of sellers they are larger than any agency by far. Compared to the current markets, both are smaller than the portals in the United Kingdom but larger than those in Sweden, with between 100 000 (Colombia) and 150 000 (Mexico) listings. The other factors are also favorable for both Mexico and Colombia. The portals already offer external advertising and in Colombia some portals consist of up to 60% homeowners, which is beneficial since there are then fewer actors involved in the transaction process. All this leads to placing portals in Colombia and Mexico in the medium priority category. Chile's portals also seem quite promising, since they do have more listings than Sweden's largest portal, but because of the uncertainty of the data retrieved from surveys, extra caution should be taken while making a final evaluation of the risks of entering that market. All of the data on advertising does paint a favorable image though, if it can be generalized.

8.3 Low Priority

Countries that are low priority are not promising at the moment but might be in the future. They are also not similar to PropTech Inc.'s current markets. This encompasses most of the markets researched, including the real estate developers and agencies in Chile, Colombia and Mexico. The real estate developers in Argentina are also set to low priority, as they do not currently sell their own properties directly to homeowners. If the real estate developers in Argentina would sell their own properties in the future this segment could be interesting. Some changes in the aforementioned markets could potentially make them interesting. For example a very promising possibility for the agents would be a change in the exclusivity on a national level. Based on the interview with the Mexican professional, exclusivity is getting more common in the region. This might in the longer term lead to a change of sentiment. The most important of the markets studied would in that case be Mexico, based on the large amount of listings sold in the country every year. According to the data gathered, Mexico actually had the most listings sold out of all the countries in Latin America, reaching just over 625 000. In comparison with the current markets it is six times larger than Sweden and half the size of the United Kingdom. Additionally, Mexico is currently not interesting because of the low price per square meter. However if both those factors change Mexico would be a prime target for expansion, so the country's development should be kept an eye on. Similar arguments could be made for both Colombia and Chile, but to a lesser extent.

Another market segment that might have been overlooked due to lack of accessible information are Mexican developers. They would provide the exclusivity that is critical for PropTech Inc. With the amount of sold listings per year in the 600 thousands there ought to be a couple of large players in the development market. This is definitely an opportunity that should be further examined.

Table 11: Shows the prioritization of the studied countries in the different segments.

Priority	**Countries**
High	• Real estate agencies in Argentina • Real estate developers in Brazil
Medium	• Property portals in Brazil, Colombia, Mexico and possibly Chile • Real estate agencies in Brazil
Low	• Real estate developers and agencies in Chile, Colombia and Mexico • Real estate developers in Argentina

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Appendix A - Analysis of First Screening

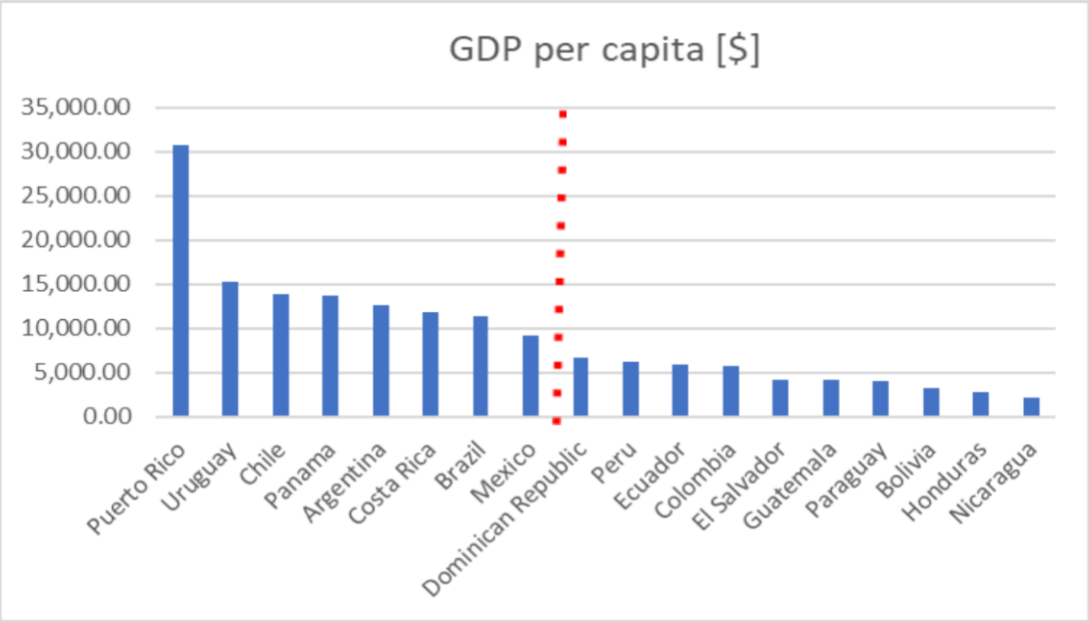

Figure 14: Shows GDP per capita in dollars for 18 Latin American countries in 2017.

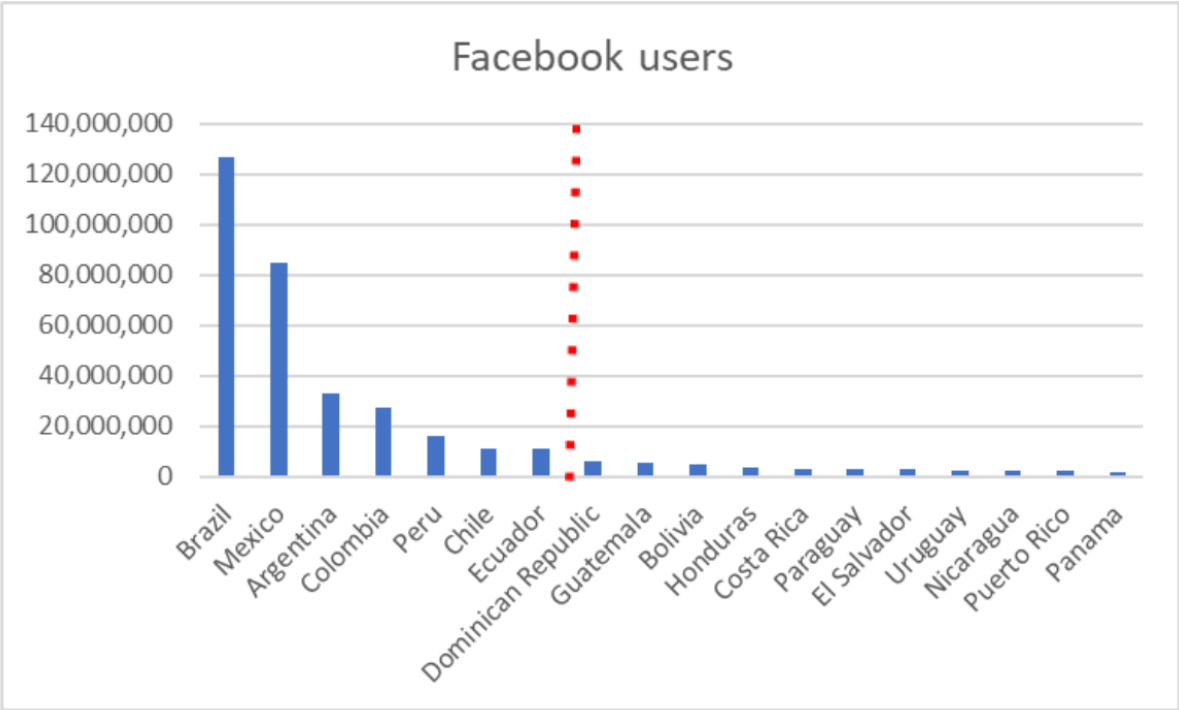

Figure 15: Shows number of Facebook users for 18 Latin American countries in 2016.

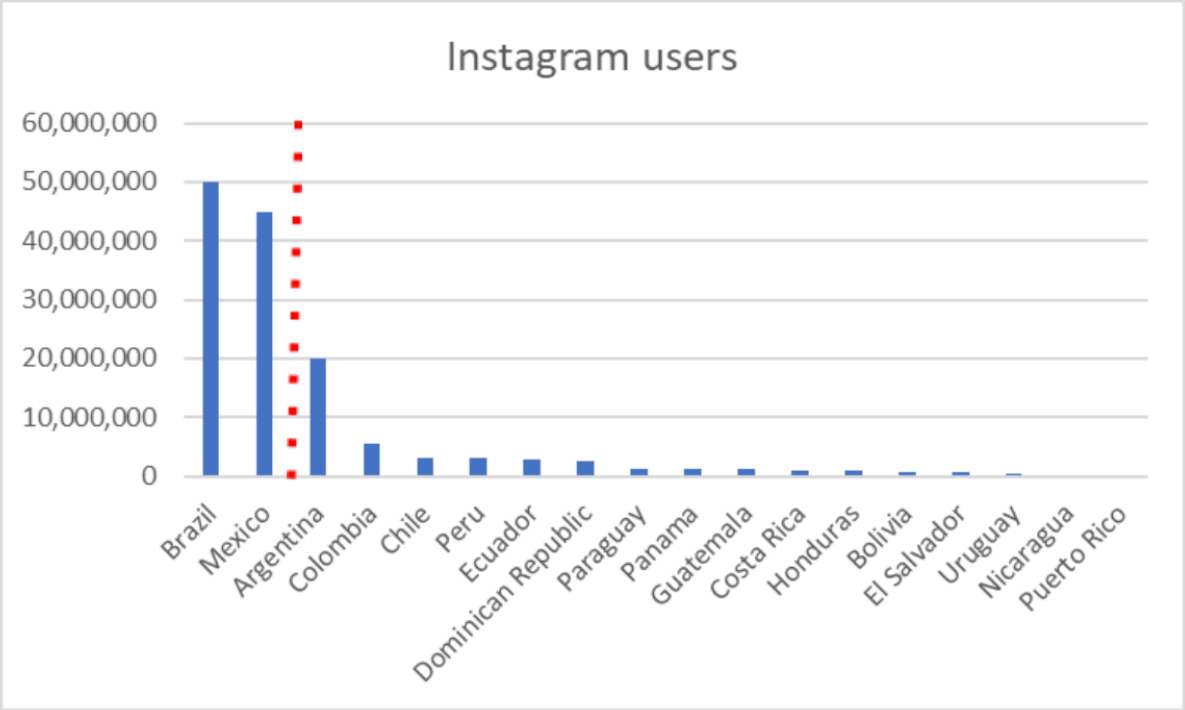

Figure 16: Shows number of Instagram users for 18 Latin American countries in 2016.

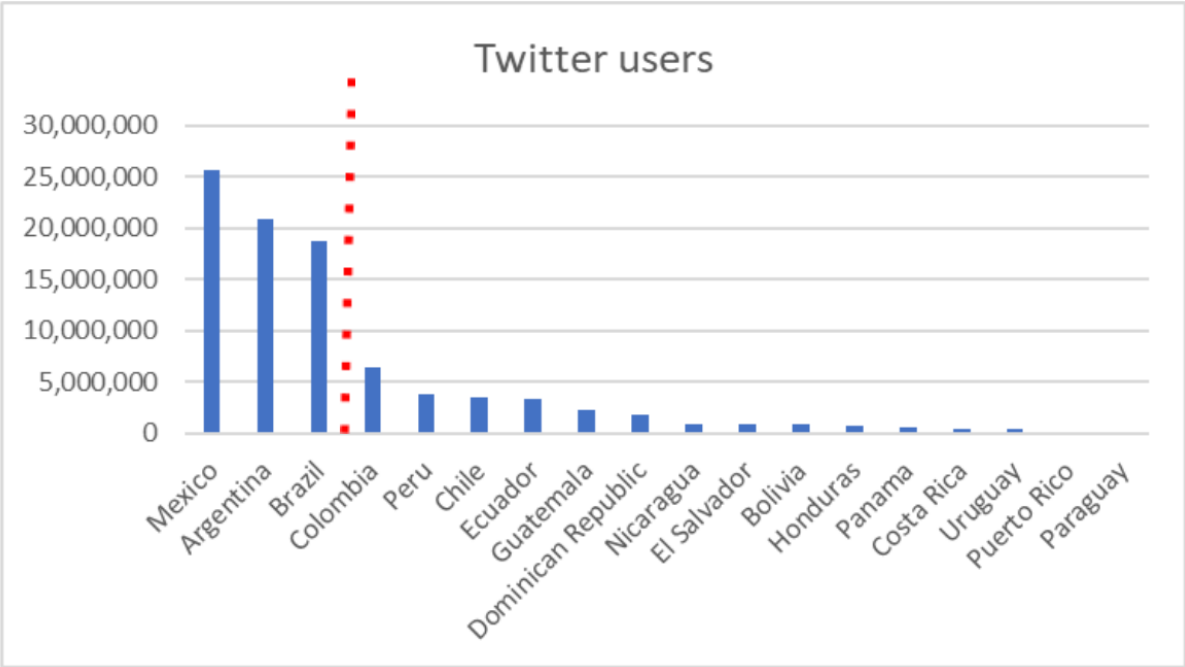

Figure 17: Shows number of Twitter users for 18 Latin American countries in 2016.

All data in the charts is retrieved from Statista.com.

Appendix B - Surveys

Survey for Real Estate Agencies

Name of your firm:

- …..

Your name and position in the company

- …..

How many real-estates does your firm sell per year?

- …...

Is your firm part of a franchise?

- Yes
- No

If so, what is the franchise called?

- ……

How much does the entire franchise sell per year?

- …...

Generally, about how often does your firm use the following advertisement channels when selling a particular home? (Never, 25% of cases, 50% of cases, 75% of cases, Always)

- The firm's own website
- Social media (Facebook, Twitter or Instagram)
- Online property portals
- Other (Newspapers, Flyers, TV, Radio etc.)

Which property portals does your firm currently use?

- …...
- We do not use any property portals

How much is spent on marketing per home on average [in currency]?

- …..

Who buys and pays for the advertisement?

- Our firm handles the advertising and pays for it
- Our firm handles the advertising and the home seller pays for it
- The home seller handles the advertising and pays for it
- Other…..

How does your firm use Facebook?

- Our firm has a Facebook-page with contact information
- Our firm makes posts on their Facebook-page

- Our firm uses paid advertisement on Facebook
- Our firm pays another company to help them advertise on Facebook

Does your firm get the exclusive right to sell a particular home?
(This means that no other real-estate agent may sell the home)

- Yes, always
- Often, in around 75% of cases
- Sometimes, in around 50% of cases
- Rarely, in around 25% of cases
- No, never

Who pays the tariff when you have sold a property?

- The home owner pays
- The buyer pays
- The homeowner and the buyer split the comission
- ……

Does it happen that another real estate agency helps your firm find a buyer in exchange for a commission? If so, how often would you say it happens?

- Yes, always
- Often, in around 75% of cases
- Sometimes, in around 50% of cases
- Rarely, in around 25% of cases
- No, never

How would you characterize the real estate agency market in [YOUR CITY]?

- Dominated by 1-4 agencies
- Dominated by 5-8 agencies
- Many small agencies
- Other: …….

Is there any other question you think we should have asked? (Optional)

- …...

Survey for Real Estate Developers

Name of your firm:

- …..

Your name and position in the company

- …..

On average, how many real-estates does your firm build per year?

- …...

Does your company take care of the marketing of your real estate?

- Yes, always
- In around 75% of cases
- In around 50% of cases
- In around 25% of cases
- No, never

Is your firm part of a franchise or other kind of organization?

- Yes
- No
- …..

If so, what is the franchise/organization called?

- ……

How much does the entire franchise/organization sell per year?

- …...

Generally, about how often does your firm use the following advertisement channels when selling a particular home? (Never, 25% of cases, 50% of cases, 75% of cases, Always)

- The firm's own website
- Social media (Facebook, Twitter or Instagram)
- Online property portals
- Other (Newspapers, Flyers, TV, Radio etc.)

How much is spent on marketing per home on average [in currency]?

- …..

Which property portals does your firm currently use?

- …...
- We do not use any property portals

How does your firm use Facebook?

- Our firm has a Facebook-page with contact information

- Our firm makes posts on their Facebook-page
- Our firm uses paid advertisement on Facebook
- Our firm pays another company to help them advertise on Facebook

How would you characterize the real estate agency market in [YOUR CITY]?

- Dominated by 1-4 agencies
- Dominated by 5-8 agencies
- Many small agencies
- Other: …….

Is there any other question you think we should have asked? (Optional)

- …...

Survey for Property Portals

Name of your firm:

Your name and position in the company

- …..

How many properties does your firm list on its website per year?

- …..

What percentage of the listings in your portal are from real-estate agencies, private homeowners and real-estate developer respectively?

- Real-estate agencies: …. %
- Private homeowners:.....%
- Real-estate developer….%

How much do you charge private homeowners for advertising their property on your portal?

- …..

What pricing model does your firm use to charge real estate agencies?

- Fixed price per listing
    - How much is the Fixed price?

- Monthly/Yearly fee with unlimited listings
    - How much is the monthly/yearly fee with unlimited listings

- Monthly/Yearly fee with limited listings
    - How much is the monthly/yearly fee with limited listings

- It is free of charge
- Other…

How does your firm use Facebook?

- The firm has a Facebook-page with contact information
- The firm makes posts on their Facebook-page to promote the website
- The firm makes posts on their Facebook-page to promote homes in particular
- The firm uses paid advertisement on Facebook
- The firm pays another company to help them advertise on Facebook

Does your portal also offer to advertise properties outside of your own website? (E.g. on Facebook)

- Yes, it is always included
- Yes, we offer it but it is optional for the seller and it costs extra
- No, we do not offer this service
- Other...

How much is spent on advertising per home on average? (outside of your own website)

- ...

How would you characterize the real estate agency market in [YOUR CITY]?

- Dominated by 1-4 agencies
- Dominated by 5-8 agencies
- Many small agencies
- Other: …….

Is there any other question you think we should have asked?

- …...

Survey for Institutions

What institution do you work for?

- ……..

Your name and position in the institution?

- …..

Approximately how many real estates are sold per year in [COUNTRY]?

- ……

Approximately how many real estates are built per year in [COUNTRY]?

- ……

How are newly-built real estates normally sold in [COUNTRY]?

- The real estate developers sell them themselves
- Real estate agencies help the developers find a buyer
- The real estate developers use property portals
- Other….

How would you characterize the real estate agency market in [COUNTRY]?

- Dominated by 1-5 agencies
- Dominated by 5-8 agencies
- Many small agencies
- Other: ……

Do the real estate agencies in [COUNTRY] get the exclusive right to sell a particular home?
(This means that no other real estate agency may sell the home)

- Yes, always
- Often, in around 75% of cases
- Sometimes, in around 50% of cases
- Rarely, in around 25% of cases
- No, never

In Brazil, does it happen that one real estate agency helps another real estate agency to find a buyer in exchange for a commission? If so, how often would you say it happens?

- Yes, always
- Often, in around 75% of cases
- Sometimes, in around 50% of cases
- Rarely, in around 25% of cases
- No, never

There are many ways homeowners can sell their homes (real estate agencies, portals, personal contacts). How would you say most homeowners sell their property?

- ….

Is there any other person or organization that would give us more information about the residential market in Brazil? If so, we would appreciate it if you could provide us with his/her contact information down below.

- …

Appendix C - Introduction Email for Survey Respondents

Dear Sirs/(Ma'am),

We are a group of students from the Swedish university of technology Chalmers conducting a study to examine the effectiveness of digital advertising in the real-estate market of countries in Latin America. Our goal is to determine if it is possible to implement swedish technology in order to improve targeted advertisement on social medias.

Although we have collected information regarding the usage of digital media such as Facebook we currently lack data regarding how real-estate agencies(/portals) operate in each country.

Seeing as [firm] is a well-established [entity] in [place] we kindly ask you to answer a few questions in a quick survey, it would be very helpful for the study.

[Link to survey]

We assure you [firm] will remain anonymous and we would gladly share our results if you are interested once the study is complete.

Best Regards, Name