

The occupational life cycle of real estate brokers: a cohort study

The life cycle of
real estate
brokers

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Abstract

Purpose – The purpose of this article is to describe and analyze the occupational life cycle of Swedish real estate brokers.

Design/methodology/approach – Voluntary turnover among real estate brokers could lead to occupational turnover and/or employee turnover and has been described as problematic by both practitioners and researchers alike. Most previous studies focusing on this issue have explored connections between real estate brokers' personality, economic and market conditions and turnover. Employee turnover involves shifting jobs within the profession (real estate brokerage), whereas occupational turnover concerns movement to a job not related to the real estate brokerage profession. Both perspectives on turnover are however lacking data about the average time spent as a broker. This study fills this gap by exploring real estate brokers' life cycle through data analysis using a cohort study consisting of a sample of 5,304 real estate brokers registered and/or deregistered over a ten-year period from 2010 to 2019.

Findings – The analysis show that the decline is almost linear, resulting in 50% of the newly registered real estate brokers remain in the occupation eight years after registration. These findings are not in line with previous assumptions as the real estate brokers' life cycle is substantially longer. The results also reveal that there are differences in life cycles due to gender and year of registration.

Originality/value – The analysis of longitudinal, aggregated data on the life cycle of real estate brokers is highly relevant as it serves as a point of reference for future longitudinal studies analyzing the motives for leaving the occupation.

Keywords Real estate brokers, Brokerage, Occupational turnover, Life cycle, Sweden, Cohort analysis

Paper type Research paper

1. Introduction

The mediating function of real estate brokerage (brokerage) is crucial for the real estate market as it is a prerequisite for secure and efficient real estate transactions (Elder *et al.*, 1999; Yavas, 1994; Yavas, 2007). The real estate and brokerage markets are therefore intertwined and highly dependent on each other (Zumpano *et al.*, 2000), yet they differ in structure, as the real estate market is capital-intense whereas the brokerage industry is human-intense (Feng *et al.*, 2022; Chinloy, 1988; Groot *et al.*, 2011; Zumpano *et al.*, 2000). Over time however,

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brokerage firms are becoming more aware of the value of talented employees as assets needing to be managed in a proper way since each individual real estate broker (broker) are affecting revenues (Philips and Roper, 2009). This study emphasizes on employee turnover, and more precisely the occupational life cycle of brokers.

There are a number of reasons why people choose to leave their occupations (cf. Abelson, 1987). Regardless of the specific reason(s), turnover is usually neither initially expected nor wanted by employees or organizations. Turnover is therefore often seen as problematic and a consequence of a mismatch between (1) the anticipated skills of the employee and occupational/organizational demands (Cable and DeRue, 2002; Larsen and Coleman, 2003), and (2) the employee's needs and what the work supplies (Deci and Ryan, 1985; Ryan and Deci, 2000). It is often acknowledged that high matches indicate high person–job fit (PJF) whereas mismatches indicate low PJF (Cable and DeRue, 2002).

Employee turnover is seen as particularly problematic within professional services from an organizational perspective for several reasons (Lewin and Sager, 2008). Firstly, when a high-performing service provider leaves the organization, it usually leads to an instant decrease in sales (Larsen and Coleman, 2003; Zumpano *et al.*, 2000). Secondly, the more specialized and customized the service is, the more dependent the organization is on the ability and personality of the individual service provider (Weitz and Bradford, 1999). This means that replacing the service provider is both time-consuming and expensive (Holtom *et al.*, 2008; Larsen and Coleman, 2003). Thirdly, previous studies indicate that loyalty between the customers and the service providers might be stronger than the customers' loyalty to the organization (Palmatier *et al.*, 2007). Some previous studies estimate turnover costs to be 200% and even up to 400% of salary within sales (Griffeth and Hom, 2001; Richardson, 1999).

Brokers could undoubtedly be described as professional service providers who need to be self-propelled and competitive (Ahlenius *et al.*, 2021; Arndt *et al.*, 2017; Benites-Gambirazio, 2020). Within the industry, employee turnover is argued to cause significant problems and costs and has therefore been studied and evaluated from an organizational perspective (Larsen and Coleman, 2003; Rosenberg *et al.*, 1981). Most previous studies relating to turnover within brokerage have explored the effects of motivation (Mosquera *et al.*, 2020), income (Larsen and Coleman, 2003), personality (Crant, 1995), burnout/demanding customers (Love *et al.*, 2011; Snyder *et al.*, 2011) and job satisfaction, besides work–family conflicts (Lee *et al.*, 2014). The income levels are described as problematic both in terms of level and being volatile. For example, prior studies with a time span of 20 years between them stipulates that US brokers made \$10,000 in their first year in 2001 and \$19,000 their first year in 2020 (McKissock Learning, 2022; Webb and Seiler, 2001). A Swedish survey conducted in 2019 among both existing and retired brokers reveals that levels of income and insecure incomes, odd working hours and other person–job fit mismatches were the primary reasons for turnover intentions and actual turnover (FEI, 2019). Another antecedent of occupational turnover among new brokers is having wrong occupational perceptions (e.g. income and working hours) in combination with lack of knowledge about one's own ability (Ingram and Yelowitz, 2019; Webb and Seiler, 2001). However, almost all of these studies lack longitudinal data, and therefore also a thorough analysis concerning the life cycle of brokers.

There is a demand for occupational life cycle studies among brokers (Webb and Seiler, 2001), and the lack of such data has resulted in speculation among practitioners and scholars about how long brokers stay within the occupation and confusion concerning the employee and occupational turnover. For example, (1) in a study by Lee *et al.* (2014), it is argued that only 50% of the new recruits within brokerage would continue working with the same company after about two years, indicating the high employee turnover rate of brokers, (2) a study conducted by Snyder *et al.* (2011) uses questions about turnover intentions that might address both employee and occupational turnover, (3) yet another study conducted among

US brokers reveals that 52,5% has left their local realtor board within three years of registration and that 62,5% has left their employer within three years of registration (Larsen and Coleman, 2003). However, leaving the local board/employer is not necessary the same as leaving the occupation. These examples pinpoint the necessity to differ between employee and occupational turnover when addressing voluntary turnover.

It is necessary to differ between them due to the possibility of different antecedents (Zimmerman *et al.*, 2020). Occupational turnover could for example be caused by work–family conflicts or personality (i.e. low fit between employee needs and job supplies), which is hard to influence from a managerial perspective, whereas employee turnover could be caused by a perceived unfair salary system which is easier to influence from a managerial perspective (Darmon, 2008). The same confusion about employee turnover or occupational turnover is seen in studies conducted among other occupations, such as nurses (Hayes *et al.*, 2006; Rudman *et al.*, 2010).

Occupational turnover has received a lot less attention compared to employee turnover (Blau, 2007; Rhodes and Doering, 1983; Zimmermann *et al.*, 2020) despite the fact that occupational changes occur multiple times during an individual's lifetime (Bolles, 2006). This study views occupational turnover as the end of an occupational life cycle and aims at contributing to the occupational turnover discussion.

All Swedish brokers are registered by the governmental agency the Swedish Real Estate Broker Inspectorate (Inspectorate), which makes it possible to undertake a longitudinal cohort study. The data concerning the life cycle of brokers is necessary as it provides a baseline for the analysis. The awareness of this baseline is essential for potential brokers, policymakers, brokerage associations, educators and scholars with an interest in turnover within real brokerage and professional service. The main purpose of this study is therefore to provide a description and analysis of the life cycle of Swedish real estate brokers, using data over a ten-year period from 2011 to 2020.

2. Previous studies

2.1 *Employee and occupational turnover*

One of the most durable topics of academic inquiry, attracting well over 1,000 studies in a hundred-year period, is that of employee turnover (Steers and Mowday, 1981). A common definition of employee turnover is that it occurs when an employee decides to leave the organization, either voluntarily or involuntarily (Cotton and Tuttle, 1986). In most previous studies, employee turnover was treated as a negative phenomenon that should be controlled, but recent research has indicated that turnover has a positive impact on for instance firm innovativeness (Hom *et al.*, 2017). Occupational turnover, which occurs when an individual decides to leave the occupation altogether (Cunningham and Sagas, 2003), is another story. Research into occupational turnover has focused on male-dominated occupations such as police and sports coaching (Cunningham and Sagas, 2003; Brough and Frame, 2004). Furthermore, another strand of research has focused on nursing and other sectors that experience high occupational turnover and where skilled employees are in short supply, primarily health care and in particular nursing (Laschinger *et al.*, 2016; Mosadeghrad, 2013; Van der Heijden *et al.*, 2018).

The annual turnover rate within an occupation is not a description of the occupational life cycle of employees. However, data about annual occupational turnover is an interesting background when accessing the occupational life cycle as it serves as a baseline. For example, 8.4% of the Swedish brokers left the occupation between 2012 and 2020 (Inspectorate, 2021), and the NEXT study revealed that 9.3% of all nurses decide to leave the occupation every year (Hasselhorn *et al.*, 2006). However, a cohort study undertaken by Rudman *et al.* (2010) shows that among nurses who graduated in 2002, 2004, and 2006, about 2% of the

participants had left the nursing profession five years after graduating. Another example is engineers from the US, where 11% decide to leave the occupation every year. However, within three years of graduation, 29% of men and 39% of women who earned a bachelor's degree in engineering had left the occupation (Frehill, 2010). Furthermore, only about 65% of men and women who graduate with an under-graduate degree in engineering take an engineering job, and within this group, only 40% remain within engineering ten years into their careers (Frehill, 2010).

It is hard to find occupations to compare brokerage with (Benjamin *et al.*, 2007; Lee *et al.*, 2015). Still, brokers are undoubtedly within sales, and sales force turnover is acknowledged as problematic. However, there is no consensus about the magnitude of the problem or the life cycle of sales persons. For example, (1) a sales executive poll reveals that over 50% of them experienced turnover rates of over 15% (Keenan, 1993; Darmon, 2008); (2) 27% of salespeople leave their jobs in a year (Richardson, 1999); (3) most sales organizations cannot retain more than 50% of new salespeople for more than a couple of years (Darmon, 2008; Futrell and Parasuraman, 1984; Richardson, 1999).

As employee and occupational turnover has important consequences both for the individual and the organization, a number of studies have tried to identify the antecedents/reasons for, turnover (cf. Staw, 1980; Brough and Frame, 2004). In general, the reasons for turnover can be separated into three distinct dimensions. The first dimension relates to organizational/work factors such as discrimination, stress and job satisfaction (Blau, 2000; Blau *et al.*, 2003). Secondly, there are a number of variables attributed to the individual that can explain turnover, for instance motivation, burnout, well-being, occupational commitment/satisfaction, identity, gender, pay level, marital status and occupational experience (Blau and Lunz, 1998; Carson *et al.*, 1995; Demerouti *et al.*, 2000; Larsen and Coleman, 2003; Mosquera *et al.*, 2020; Snyder *et al.*, 2011; Zimmermann *et al.*, 2020). Finally, there are also a number of factors external to the individual and organization within brokerage that could account for turnover, such as employment opportunities in other markets and industries, besides price and demand fluctuations in the real estate market (Cotton and Tuttle, 1986; Zumpato *et al.*, 2000).

2.2 The person–job fit model

It is often claimed that environment and organizational fit affect occupational turnover, but it is arguably not as influential as the PJF, which is a two-dimensional conceptualization, consisting of a match between job demands and abilities of the employee and the match between job supplies and employees' needs (Edwards *et al.*, 1991; Kristof-Brown *et al.*, 2005). Edwards *et al.* (1991) specifies that *demands* consist of workload, performance requirements and instrumental activities and that *abilities* consist of knowledge, skills, aptitude and education. The employees' *needs* are defined as desires consisting of psychological needs, values, goals, interests and preferences, whereas job *supplies* include pay, benefits, training, interesting and challenging work, promotion opportunities, recognition, good working conditions, and decision-making autonomy (Cable and DeRue, 2002; Edwards *et al.*, 1991).

Specifying the work demands and abilities in a specific context is easier than specifying the job supplies and employee's needs, as these are highly dependent on the individual (Churchill *et al.*, 1974). A good fit between work demands and employees' abilities ought to increase efficiency and performance. However, this fit does not indicate job-related motivation as it is possible to excel at something without enjoying it. Prior studies within brokerage shows that the brokerage occupation demands working odd hours, working with customers in financial and emotional settings that are sometimes demanding, being self-propelled and competitive, stress resistant, and a preference of commission-based salary (Ahlenius *et al.*, 2021; Benites-Gambirazio, 2020; Bryson, 2017; Langseth-Eide and Vittersø, 2021; Larsen and Coleman, 2003;

The voluntary decision to leave an occupation is arguably heavily influenced by the individual's perception of fit. Another way of framing it is to argue that the occupational life cycle is mainly a consequence of a longitudinal fit between the characteristics of the worker and the job. A previous study emphasizing turnover conducted among newly graduated nurses reveals that person–job fit decreased during their initial years as nurses (Laschinger *et al.*, 2016). This is interesting as it may point to a mismatch between occupational perception and reality.

3. Methodology

3.1 Cohort analysis

The purpose of a cohort study is to follow a group of people that share some characteristics over time (Mann, 2003). In other words, a cohort analysis is a longitudinal study with characteristics of a cross-sectional study. One characteristic that is shared by people are occupations. Occupational cohort studies can serve multiple objectives and have been instrumental in the identification of numerous occupational hazards and quantification of associated risks during the past 50 years (Checkoway and Eisen, 1998). At the simplest, most descriptive level, an occupational cohort study might be initiated to examine temporal patterns among a work force (Checkoway and Eisen, 1998). Cohort studies can be either retrospective or prospective. Prospective data comprise information before an outcome occurs and respondents are tracked longitudinally whereas retrospective data collection involves tracking respondents longitudinally backwards searching for a protentional outcome (Jivraj *et al.*, 2020).

While cohort analysis or cohort studies have been an important method of analyzing data within a number of subject fields over the years, such as epidemiology (Alberti *et al.*, 2002), medicine (Nosho *et al.*, 2010) and sociology (Mackenbach *et al.*, 1994), there are very few studies using the cohort analysis in business studies. The temporal pattern that is given focus in this study is brokers' total years of registration as it describes the occupational life cycle. Focus is not given as to why brokers chose to deregister, meaning that there is no dependent variable being tested. One can therefore argue that this retrospective cohort study is "simpler" and more descriptive in nature.

3.2 Sample and data

The Swedish Real Estate Broker Inspectorate is a governmental agency under the Ministry of Finance. The role of the inspectorate is since 1995 to handle registrations, as well as review and supervise and sanction the real estate brokers if they have violated any rules or regulations. Most brokers in Sweden are residential brokers, still the data set consists of commercial brokers as well since they operate under the same legal requirements as residential brokers. All data in this paper comes from the inspectorate.

The studied population consists of the records on gender balance, and registrations of all Swedish brokers between 2011 and 2020 ($N = 6,689\text{--}7,232$ depending on the year, see Table 1), as well as individual level registry data on date of registration and deregistration ($N = 5,312$).

All data were anonymized by the Inspectorate. This data allows us to follow the respective yearly cohorts of registered brokers between 2011 and 2020 in full at an individual and aggregate level. A total of eight records out of 5,312 were incomplete regarding gender and/or municipal level and were recorded as missing data, putting the useful sample at 5,304. To be able to corroborate possible relationships between the number of years a realtor has been

Table 1.
Numbers of registered
real estate brokers
during 2011–2020

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Number of registered brokers	6,772	6,724	6,689	6,792	6,834	6,910	7,018	7,193	7,154	7,232
–Women	2,905	2,913	2,949	3,056	3,136	3,190	3,223	3,278	3,269	3,332
–Men	3,876	3,811	3,740	3,736	3,698	3,720	3,795	3,913	3,878	3,895
New registrations	677	672	578	641	531	542	720	791	675	659
–Women	401	377	353	391	299	303	369	394	353	359
–Men	276	295	225	250	232	239	251	397	320	298
Deregistered	573	711	601	533	458	466	607	603	689	561
–Women	334	365	318	285	220	250	332	331	351	290
–Men	239	346	283	248	238	216	275	272	338	271

Source(s): [Inspectorate \(2021\)](#)

registered, the gender of the realtor and their survival in the occupation logistic regression is conducted.

4. The Swedish market for real estate brokers

In a European perspective [Schmid et al. \(2007\)](#) have identified four different regimes for real estate conveyancing processes in the European Union.

- (1) *The Latin-German notary system*, where a notary – a specialized notary operating in the service of the public – gives impartial legal advices to both buyers and sellers and also takes care of the formal parts of the real estate transaction. The arrangement with a notary as a main person in the process is the most common one and can be seen in for example France, Spain, Germany, Poland, Slovenia and Italy.
- (2) *The deregulated Dutch notary system* – a result of Netherlands deregulations of its notary system.
- (3) *The lawyer/solicitor system*, where the conveyancing services in the brokering process are provided by lawyers. This system can be seen in for example the UK, Denmark, the Czech Republic and Hungary.
- (4) *The Nordic licensed broker system*, which Sweden and Norway and to some extent also Finland belongs to. It is characterized by a system where real estate broker is a regulated profession and where the broker is personally responsible for and does all the work in the transaction process, including the impartial legal advice and the formal parts of the real estate transaction.

[Murray \(2007\)](#), [Schmid et al. \(2007\)](#), and [Jingryd \(2012\)](#) have discussed which system is preferable with respect to aspects such as transactions cost and consumer protection. Question marks have, for example, been raised about the transaction costs in the Latin-German notary system and the suitability of Swedish brokers to provide legal advices to both buyers and sellers. Advantages and disadvantages of licensing have been discussed in detail in British context ([The Office of Fair Trading, 2004](#)). Here, too, the balance between transaction costs and consumer protection plays a central role in the discussion. [Jingryd \(2012\)](#) stipulates that Scandinavian brokers play a far larger role in real estate transactions than their European counterparts. In comparing, US brokers either work for the seller or for the buyer.

The Swedish market for brokers consisted of 3,555,000 potential properties in 2019 ([Statistics Sweden, 2021](#)). The development of the number of residential properties has been

rather stable over the past five decades in Sweden, with a yearly average growth of the housing stock amounting to 1% (Statistics Sweden, 2021).

In 2020, 163,000 transactions were completed through brokers and the number of registered brokers in Sweden was 7,232 (The Association of Swedish Real Estate Brokers [ASREB], 2021; Inspectorate, 2021), which means that each registered broker on average was participating in 23 transactions. As a comparison, in the US in 2017, there were about two million active real estate licenses, doing 4.8 million sales of homes, which adds up to 2.4 sales per year and license (Ingram and Yelowitz, 2019). Noteworthy is that these number are not in line with Benjamin *et al.*'s (2007) study conducted among 3,930 US broker where respondents argue to do circa 25 sales per year. On the other hand, similar "off sales number" can be found in Swedish surveys conducted among brokers (ASREB, 2021). Hence, number of transactions and numbers of brokers are less biased information. Another difference between Swedish and US brokers is that many US brokers work part time (Benjamin *et al.*, 2007) whereas most Swedish brokers work full time (ASREB, 2021).

In Sweden, about two-thirds of all real estate brokers belong to a corporate or franchise chain (Engström and Persson, 2020). Different versions of franchise solutions dominate the market with approximately 2,400 real estate companies (Engström and Persson, 2020). The two professional bodies that organize the real estate brokers, The Association of Swedish Real Estate Brokers and The Swedish Real Estate Broker Association (SREBA) support the real estate brokers and companies in different respects, for example with legal advice, education and advocacy. The brokerage industry has historically been a male-dominated profession in Sweden. In 1994, only 17% of all brokers were female (Berggren *et al.*, 2019). Nonetheless that picture has changed, in the beginning of 2020, 46% of the registered brokers in Sweden were women (Inspectorate, 2021).

The educational requirements have been gradually raised. Before 1984 you could act as a broker without any education at all. Between 1984 and 1998 you had to take part in an approximately 12-week long training offered by different actors. In 1998, the Swedish government decided that the training, starting in 1999, would be two years long and only be offered by universities or colleges. The purpose with the longer education was primarily to strengthen the consumer protection (Proposition, 1994/95, p. 14). The government, through the inspectorate, proposed that the educational requirements should be prolonged to a three-year program with a bachelor's degree. On April 1, 2022, the requirements came into force, with transitional provisions until 2028 (Inspectorate, 2021). The main reason for prolonging the education is still increased customer protection (SOU, 2018, p. 64) as the inspectorate believes that there are good reasons that those who have a bachelor's degree are better equipped to master all parts of the profession than those who do not (Inspectorate, 2021). A similar statement was made by Jenny Stenberg, CEO at SREBA, who argued that longer education creates better equipped brokers and a higher occupational reputation (SREBA, 2021). On the other hand, scholars argue that increased educational requirements create barriers to establishment and lower occupational turnover (Larsen and Coleman, 2003), besides points to high costs for requirements per year without consumer improvements (Barker, 2008).

An underlying reason for prolonging the education is the problem with occupational turnover, which has been described as problematic by several actors, such as: (1) *spokespersons for professional bodies* that organize brokers, e.g. Ingrid Eiken Holmgren, former CEO of ASREB, who during an interview in 2013 said that less than 50% of all brokers remains two years after registration, or the abovementioned Jenny Stenberg, who in 2020 argued that many brokers sees brokerage as a "pass-through" occupation wherein many do not stay for more than two years; (2) in *media* where occupational turnover has been reported to be 15–20% per year (SVD, 2018); (3) within *governmental investigations* (SOU) where occupational turnover is described as problematic and estimated between 20 and 50%

depending on how it is measured; and (4) *among scholars* who also argue that less than 50% remain two years after registration (Engström and Persson, 2020, p. 60). These numbers are inconclusive, yet they all describe problematic levels of occupational turnover.

5. Results

In the cohorts studied, an average of 2% of the newly registered brokers leave the occupation within the same year of registration. It can also be noted that 13% of the brokers has left the occupation one year after their registration. And as can be seen in Figure 1 (below), by the end of the second year 22% of the brokers have moved on to other professions. According to our analysis it will take eight years after the registration until half of the brokers have left the profession.

If we turn our attention to occupational turnover among men and women within the brokerage profession it can be seen in Figure 1 that there seems to be a gender gap within the industry, in that women leave the profession to a greater extent than men do. Thus, the overall average retention rate differs between men and women, with a five-percentage point gap after year seven, increasing to a 13-point gap ten years after the registration.

While both men and women leave the profession, the average decline in men and women as registered brokers is different when comparing the ten cohorts. However, the difference is not consistently in favor of male brokers as there is one cohort of brokers where the female brokers have fared better than their male counterparts. The greatest difference between the men and women can be observed in the cohort of 2016 where 91% of the men remained, but only 83% of the women after the first year. Only on one occasion in our data did more women than men remain after the first year of registration. In the cohort of 2014, 92% of the female brokers remained after the first year, as compared to 89% of the men.

In Figure 2 (below) the best relative years for both male and female brokers are presented. The differences here are more marked, with a mere 36% of the female brokers of the cohort of 2011 remaining in the profession today, versus 49% of the men. Regarding the cohort of 2014 the tables have turned and the women not only surpassed the survival rate of the men of the

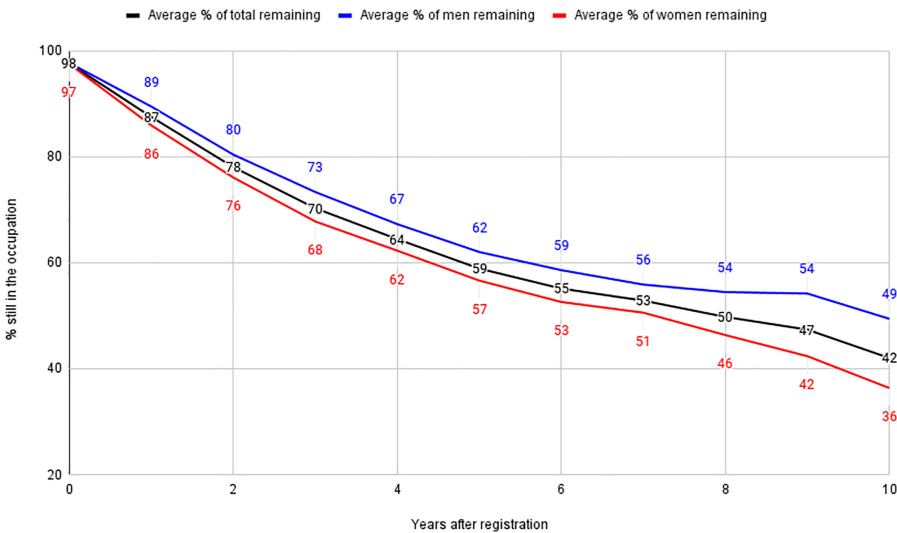


Figure 1.
Average percentage of
real estate brokers in
the profession, years
after registration, men
and women

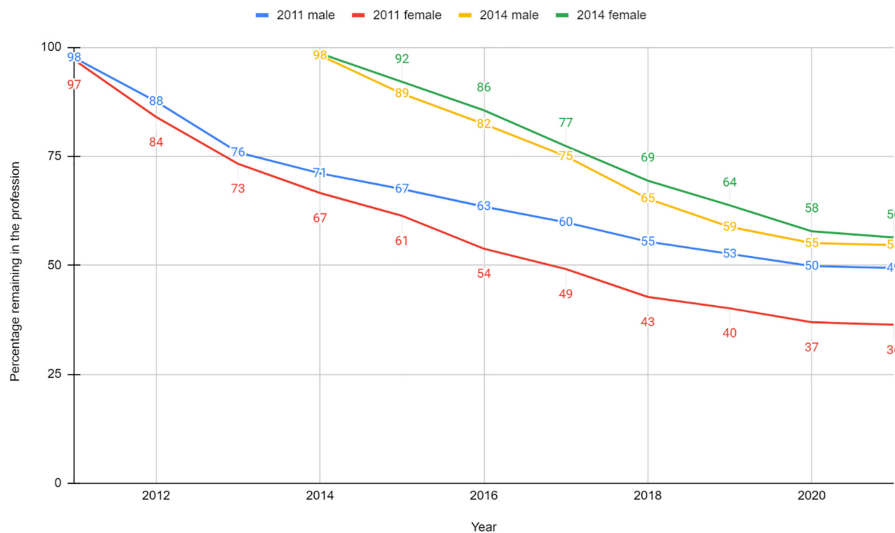


Figure 2.
Best relative year for
male and female
brokers, percentage of
brokers in the
profession, years after
registration

cohort of 2011 seven years into the profession (55%), they are also slightly more likely than the men of 2014 to remain within the profession (56 versus 55%). Current trends in recruitment into the educational programs might further mitigate this, and the current influx of female brokers could possibly change this pattern in the years to come.

If we analyze the cohorts with the highest occupational turnover, it is clear that the female brokers in the cohort from 2011 face a substantially higher turnover rate than men. Just over a third or to be more precise, 36% of the female real estate brokers from the class of 2011 remain after ten years in the profession as compared to 49% of the men. The difference is significant ($p < 0.001$) and the effect size is also substantial ($d = 1.71$ 95% CI [0.75–2.64]).

If we then turn our attention to the cohorts with the lowest occupational turnover, we can see that male brokers from the class of 2012 have remained in the profession to an unusually high extent. Leveling out at a 61% survival rate after seven years, and then 59%, years 8 and 9. This level of retention is on par with the levels reached by female brokers after 3–4 years in the classes of 2015 and 2016 ($p < 0.001$, $d = 2.88$ 95% CI [1.42–4.31]).

The female brokers from the cohort of 2014 are of special interest as they have remained in the occupation at a rate that even exceeds most years for male brokers. Years 0 through 4 are especially high, with 77% remaining four years after the registration. Only in 2012 did male brokers have higher levels after seven years (56%). The difference compared to the male brokers of 2014 is significant ($p < 0.001$) as is the effect size ($d = 2.05$ 95% CI [0.77–3.29]).

Finally, the cohort of 2017 saw both male and female brokers keeping their registrations at a high level, with 99% remaining after the first year. Male brokers from this class also remain in the profession at significantly higher levels than females four years after their registration (73%) ($p = 0.02$, $d = 1.68$ 95% CL [0.23–3.08]).

To further corroborate the above observations a logistic regression was conducted using JASP (0.16) to analyze the relationship between the number of years a broker has been registered, the gender of the broker and their survival in the occupation. The logistical regression model was statistically significant ($\chi^2 (5,297) = 2,636$, $p < 0.001$). The model correctly classified the cases correctly, with a sensitivity of 70.8% and specificity of 82.5%. Managing to stay in the profession during the first few years increased the chances of

survival, whereas female brokers reduced the likelihood of survival in the profession by 63% compared to men with the same experience.

6. Analysis

While previous studies on occupational turnover (e.g. [Lee et al., 2014](#); [Larsen and Coleman, 2003](#); [Webb and Seiler, 2001](#)), and for that matter, the public debate in Sweden as well, have claimed that the turnover of brokers is particularly high in the first years in the occupation ([Engström and Persson, 2020](#); [SOU, 2018](#), p. 64), no such trace can be seen in our data. On the contrary, the decline of brokers seems to be almost linear.

This baseline for further discussions and studies is the most important contribution from this study. Occupational turnover among Swedish brokers must in some way be seen as a problem for the industry itself as it generates a constant loss of experience and need for new brokers, which is in line with prior studies ([Larsen and Coleman, 2003](#); [Weitz and Bradford, 1999](#)).

The logistic analysis further reinforces the importance of facilitating new brokers entering the business and providing them with the best possible starting years of their career. It also points to the problematic situation of female brokers in the studied cohort, and the effects of their survival in the occupation in the longer run. The fact that women have lower survival rates than men according to this study is partly in line with previous studies within brokerage ([Larsen and Coleman, 2003](#)). However, there are inconsistencies that are worth further studies. For example, female brokers of 2014 have a significant larger survival rate compared to men which makes the cohort of 2014 interest to follow up in future studies. Furthermore, the cohort of 2017 saw both male and female brokers keeping their registrations at a high level, with 99% remaining after the first year. Male brokers from this class also remain in the profession at significantly higher levels than females four years after their registration (73%). This specific group of male brokers could be interesting to follow up in the future as their retention in the occupation is significantly higher than females during this early part of their career.

There are both similarities and differences the between brokers' baseline and results of previous occupational studies. For example, engineers where 29–39% leave the occupation within three years, nurses where 2% leave the occupation within five years and engineers where 60% of engineers have left the occupation after ten years ([Frehill, 2010](#); [Rudman et al., 2010](#)). One explanation for the differences between occupations and occupational turnover might be a mismatch between the individual's perception of PJJF and the reality ([Ingram and Yelowitz, 2019](#); [Larsen and Coleman, 2003](#); [Laschinger et al., 2016](#)). As there is no consensus within sales regarding annual turnover or the life cycle, comparison becomes delicate. It is noteworthy however that results of this study are not in line with prior studies as the life cycle of Swedish brokers is significantly longer than prior occupational life cycle estimates within sales (see for example [Darmon, 2008](#); [Futrell and Parasuraman, 1984](#); [Richardson, 1999](#)). One reason for Swedish brokers being more persistent then other within sales is arguably the targeted education as it boosts motivation and person–job fit, at least to some extent.

Another reflection is that a longitudinal PJJF most certainly requires simultaneous changes or at least adaptations as work and individuals change over time, for example having children or new work demands. This might be particularly important/troublesome within brokerage as previous studies indicate that characteristics of brokerage (e.g. working odd hours and weekends) leads to work–family conflicts ([Lee et al., 2014](#)). For example, women in Sweden are much more likely to take out parental leave compared to men ([Haas and Hwang, 2019](#)). Hence, one reason that the occupational life cycle is significantly shorter for women than men in this study might be that work–family conflicts sprung out of job characteristics decrease longitudinal PJJF. This topic is worth analyzing in greater detail. Nonetheless, there

may also be other explanations worth looking into. Are women's higher propensity to leave the profession a result of negative or positive choices? That is an area for further studies.

There are a number of characteristics within the real estate brokerage industry that have been highlighted as potentially problematic, such as unhealthy high competition, high workload (including weekends), accessibility requirements, stress and poor introduction of new employees (Engström and Persson, 2020; Snyder *et al.*, 2011). From a longitudinal perspective person–job fit influences both intentions to stay or leave the occupation (Cable and DeRue, 2002; Kristof-Brown *et al.*, 2005; Zimmerman *et al.*, 2020). There is a lack of such studies within brokerage which is unfortunate, as an adequate description of brokerage (what the job demands and supplies) in combination with self-awareness (needs and abilities) would be beneficial for potential/practicing brokers, policymakers, brokerage associations, educators and scholars with an interest in turnover within brokerage and professional service.

The question remains: will the three-year, instead of the two-year, education by itself lead to a lower occupational turnover? Three assumptions can be made regarding increased educational demands in regard to occupational turnover. First, the longer education might decrease the numbers of new brokers which in turn should lower occupational turnover among existing brokers (Larsen and Coleman, 2003), and maybe even increase salaries (Barker, 2008). Second, the level of education influences long-term persistence and the possibility to apply for other jobs (Crellin *et al.*, 1988; Larsen and Coleman, 2003). Third, higher educational demands will arguably not lead to increased customer protections (Barker, 2008), especially as Swedish brokers are already highly educated (Ingram and Yelowitz, 2019). On the other hand, it is doubtful if more education will have a strong impact on positive outcomes of PJF (i.e. incomes and attractiveness) besides what is mentioned. It is doubtful, as if the numbers of available real estate transactions and number of brokers are stable, then increased commissions consequential to higher real estate prices will almost only affect brokers with the highest PJF, due to the commission-based salary system.

7. Conclusions

The purpose of this study is to provide a description and analysis of the life cycle of Swedish real estate brokers. The decline of brokers is almost linear between 1 and 9 years after registration, resulting in 50% remaining eight years after registration. The occupational life cycle of brokers both resembles and differs from other occupations.

This study contributes to earlier efforts to analyze and understand the complex nature of turnover as it provides a clear baseline for future studies to benchmark against, regardless of whether these studies focus on other occupational life cycles or organizational/occupational antecedents of voluntary turnover among brokers or other sales professions. Another contribution of this study is the usage of PJF as a theoretical framework when addressing occupational turnover within brokerage/professional service.

This overview of the development of the different cohorts we followed in this study clearly shows the competitive nature of brokerage in Sweden. It also illustrates that the causality of the decline in registrations is likely complex and dependent on a large number of other variables not possible to cover in this overview. The sharp decline in registrations as well as differences between genders and year of registration point to the importance of further studies that not only break down these cohorts into regional differences but also studies that couple them to a broader spectrum of variables such as market conditions and person–job fit, which in turn may serve to explain the patterns illustrated here.

Following the oldest cohort in the study could serve as a baseline for how far the decline may eventually go and following the most successful class of female brokers (2014) over time

might serve to illustrate how the industry could work to further facilitate real estate brokerage as a viable long-term occupational choice.

7.1 Take away for practitioners

The portrayal of successful real estate brokers in media leads to misconceptions about the industry. An inflated positive picture of brokerage reduces the student's critical stance towards their PJF, which might be one reason for leaving the industry early after registration (Ingram and Yelowitz, 2019; Webb and Seiler, 2001). The brokerage industry should benefit of being more transparent about what persistent brokerage consist of and for whom it might fit.

Managers should be aware of and give notice to that employee turnover is driven by both occupational and organizational antecedents. It is noteworthy that occupational characteristics has a superior effect over organizational characteristics on employee turnover in the long run as brokerage is mostly conducted among customers and not conducted together with colleagues or managers. Adopting a PJF reasoning based on senior brokers' occupational descriptions/perceptions is one way to "screen" applicants and reduce future employee turnover based on occupational characteristics. The same line of PJF reasoning should be adapted by students. Organizational reasons for employee turnover are another story. Managers should therefore pay attention to brokers satisfaction with "organizational features" such as (1) level and nature of demands that are appropriate to make given the salary structure (i.e. commission-based/mixed/fixed), (2) the level of salary, especially percentages on commissions, compared to rival organizations (Munneke and Yavas, 2001) and (3) competition among brokers in the same office usually do exist, so there is a need to be very transparent and fair in dividing incoming business and the level of salary percentages on commissions. Previous studies indicate that brokers are driven by customer relations, excelling and being recognized for their accomplishment (Ahlenius *et al.*, 2021), which from a managerial perspective is necessary to be aware of and incorporate in organizational culture.

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