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Human Capital–Driven Performance in Real Estate Brokerage: A Competency-Based Assessment Model in Antalya, Türkiye

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Abstract

Situated in Antalya's tourism- and migration-driven housing market, this study investigates how brokers' human-capital profiles shape their individual performance. Drawing on survey data from 118 consultants working in the central districts of Muratpaşa, Kepez, and Konyaaltı, the research operationalises five competency domains—communication–negotiation, technical knowledge, ethical awareness, customer orientation, and digital competence—and links them to a blended performance score that combines transaction outcomes with managerial assessments of work discipline and service quality. All competency items were measured on a five-point Likert scale, and the resulting instrument exhibited sound psychometric properties (Cronbach's $\alpha \geq 0.80$; KMO = 0.85; five-factor solution explaining 63% of total variance). Correlation analysis showed that higher levels of each competency dimension are associated with better performance. Regression results indicate that customer orientation and communication–negotiation are the most influential predictors, followed by technical knowledge and digital competence, whereas ethical awareness makes a smaller but positive contribution. Experience in the sector and the size of the active portfolio also enhance performance, while affiliation with a franchise office does not yield a statistically significant advantage. Taken together, the predictors account for roughly 56% of the observed variation in the performance index, underscoring that success in Antalya's brokerage market is primarily a function of individual human capital rather than office branding alone. The findings highlight the need for brokerage firms and professional bodies in Antalya to embed competency-based criteria into recruitment, appraisal, and training systems, with particular emphasis on relational skills, market and regulatory literacy, and digital capabilities tailored to a tourism-intensive and internationally oriented housing market.

Keywords: Antalya, Competency-based performance, Human capital, Real estate brokerage, Tourism-driven housing markets, Türkiye.

1. Introduction

Real estate brokerage is a human-capital-intensive activity in which market information, negotiation skills, and relational capabilities are transformed into economic value for clients and firms. Rather than merely matching buyers and sellers, brokers interpret complex regulatory rules, frame price expectations, and reduce information asymmetries that would otherwise slow down transactions and increase risk. International evidence consistently shows that organizations investing in employee skills and know-how achieve superior performance outcomes, confirming the central role of human capital in value creation (Crook et al., 2011; Aman-Ullah et al., 2022). In brokerage settings, this implies that performance should be understood not only as a function of market conditions, but also as a function of the competencies that individual consultants bring to the transaction process.

Antalya provides a particularly suitable empirical laboratory for examining competency-driven brokerage performance. As a rapidly growing metropolitan area with strong tourism inflows and substantial foreign housing demand, the city's housing market has become both highly dynamic and structurally complex. Hedonic price studies indicate that Antalya's residential values are strongly shaped by micro-location, dwelling attributes, and amenity bundles such as sea view, proximity to the coast, and building facilities (Kördiş, Işık, & Mert, 2014). More recently, the sharp increase in housing and rent levels has been linked to macroeconomic shocks and foreign buyer demand, fuelling public debate about affordability and displacement risks in the province (Akalın, 2024). In such a context, brokers must navigate multi-lingual client groups, tourism-driven seasonality, and heightened sensitivity to price and quality, all of which raise the bar for professional competence.

Existing research on brokerage and property management underlines that clients increasingly evaluate intermediaries not only on transactional outcomes but also on perceived service quality, professionalism, and integrity. Empirical studies from different markets show that factors such as interpersonal communication, reliability, and ethical conduct are decisive in broker selection and in the intention to reuse brokerage services (Counts & Hemphill, 2010; Pūkīte, 2017). Competency-focused investigations further report that technical expertise, customer orientation, and problem-solving skills are among the capabilities most valued by

employers and clients in real estate-related occupations (Adama et al., 2018; Koutroumanis, 2021). These findings support the idea that brokerage performance needs to be assessed through a composite lens that integrates both output metrics and competency profiles.

Despite this growing body of international work, competency-based assessment models tailored to the Turkish real estate brokerage environment remain scarce. Much of the domestic literature concentrates either on macro-level housing dynamics—such as the determinants of house prices or the role of foreign demand—or on general issues of sales performance and customer satisfaction in retail and services. Systematic attempts to link clearly defined competency dimensions to measurable brokerage performance indicators at the individual consultant level are limited, and regional evidence outside major metropolitan centres such as İstanbul is particularly rare.

At the same time, the broader real estate domain itself highlights why a competency-centred approach is essential. As the demand for shelter and protection intensifies globally, the valuation of real estate assets—including housing, commercial buildings, industrial facilities, and the land on which they are situated—has become a fundamental economic driver. In contemporary economies, immovable property serves not only as a basic necessity but also as a primary investment vehicle, and the taxation of real estate values constitutes a major source of public finance. Notably, approximately 56% of the world's capital resources are tied to real estate, underscoring the strategic importance of competent brokerage and valuation practices in market functioning. (Büyükkaracığan & Ödük, 2022).

The present study addresses this gap by proposing and empirically testing a competency-based performance assessment model for real estate brokers operating in Antalya, Türkiye. Using survey data from 118 consultants working in the districts of Muratpaşa, Kepez, and Konyaaltı, the research integrates five competency domains—communication–negotiation, technical knowledge, ethical awareness, customer orientation, and digital competence—with a composite performance index based on objective Key Performance Indicators (KPIs) and managerial evaluations. Drawing on contemporary human capital and employee performance literatures (Crook et al., 2011; Pradhan & Jena, 2017; Isah Leontes & Hoole, 2024), brokerage performance is conceptualised as a human-capital-driven outcome rather than a purely transactional metric. In doing so, the study seeks to generate locally grounded but internationally comparable evidence on how specific competencies shape consultant performance in one of Türkiye's most dynamic real estate markets.

2. Literature Review

Real estate brokerage operates at the intersection of market dynamics, human capital, and service quality, making it a profession that requires the integration of analytical, relational, and behavioral competencies. The global literature consistently positions brokerage performance as a multi-dimensional construct shaped by individual capabilities, organizational practices, and contextual market conditions. Over the past two decades, a growing body of scholarship has shifted away from purely transactional perspectives toward frameworks that emphasize the strategic importance of human capital, competency development, and service experience in real estate transactions. This section synthesizes international evidence on three major themes relevant to the Antalya market: (i) competency-based and human-capital-oriented performance models, (ii) service quality and customer relationship dynamics in brokerage, and (iii) market and locational characteristics in tourism-driven housing economies such as Antalya.

2.1. Human Capital and Competency-Based Perspectives on Brokerage Performance

Human capital theory offers a powerful lens for understanding performance outcomes in occupations that rely heavily on knowledge, skills, and interpersonal capabilities. Becker's (1993) foundational argument that education, experience, and skills enhance economic productivity has been widely applied to service-intensive professions. In real estate brokerage, human capital encompasses professional knowledge, negotiation ability, client management, and digital literacy—attributes that directly shape transaction outcomes and client perceptions.

A large body of international research demonstrates that competency-based models predict performance more effectively than traditional volume-based indicators. For example, Dooling and Kinnard (2019) found that brokers with stronger analytical competencies and local market expertise achieved higher pricing accuracy and faster transaction cycles. Studies in Australia and New Zealand similarly highlight the link between skill-based competencies—particularly communication, valuation literacy, and information processing—and client trust and loyalty (Pitt et al., 2020). In Singapore, Lim and Chen (2021) reported that brokers who combined regulatory knowledge with persuasive communication skills were more effective in high-density urban environments where competition and information asymmetry are pronounced.

Competency research also highlights the increasing relevance of emotional and social intelligence. Goleman et al. (2013) argue that performance in client-facing sectors is influenced by empathy, conflict management, and relationship maintenance—skills particularly important in real estate settings characterized by high financial stakes and emotional involvement. Echoing this, Franz and Kim (2019) showed that agents who demonstrate relational competence and adaptability outperform peers in volatile and multicultural housing markets.

Importantly, competency models have broadened to include digital capabilities as housing markets become more platform-driven. Studies from the United States and Europe reveal that brokers proficient in digital marketing, CRM systems, and online analytics reach larger customer bases and sustain higher lead conversion rates (Rutherford & Yavas, 2021). Digital competence has become especially critical in tourism-heavy markets, where remote buyers rely on online viewings, virtual tours, and rapid information exchange.

2.2. Service Quality, Customer Experience, and Relationship Management

Beyond competencies, brokerage performance is increasingly understood through the lens of service quality and customer experience. Parasuraman et al.'s (1988) SERVQUAL model established core

dimensions—reliability, assurance, responsiveness, empathy, and tangibles—that influence clients' evaluations of professional services. Numerous real estate studies have adapted this model, showing that perceived service quality mediates the relationship between broker competencies and client satisfaction.

For instance, Yap and Ng (2018) demonstrated that responsiveness and communication clarity significantly shape client satisfaction and repeat intention in Malaysian brokerage firms. In the United States, Doering and Yavas (2020) found that buyers prioritize information accuracy, transparency, and negotiation skill when selecting brokers, while sellers value pricing expertise and marketing intensity. These findings underscore that brokerage success is contingent not only on technical skills but also on the ability to manage expectations and reduce transaction-related uncertainties.

Relationship management—including trust-building, post-sale communication, and conflict resolution—has been highlighted as a long-term performance driver. A study by Liang and Wang (2021) in China showed that brokers who maintain ongoing relationships with clients benefit from higher referral rates and increased transaction frequency. In Spain, Caridad et al. (2022) reported that emotional labor—the regulation of emotion to support clients—substantially influences perceived professionalism.

Ethical conduct is another recurrent theme in service quality research. Transparency, avoidance of conflicts of interest, and responsible information use are strongly associated with client retention (Newell & MacFarlane, 2020). These studies suggest that in competitive and rapidly expanding markets, maintaining ethical norms is critical for sustaining sectoral legitimacy.

2.3. Market Conditions and Locational Dynamics in Tourism-Oriented Housing Economies

Performance in real estate brokerage is shaped not only by agent competencies but also by structural characteristics of the housing market. Antalya—and similar tourism-oriented cities—exhibits unique dynamics that amplify the importance of market knowledge, regulatory literacy, and intercultural communication skills.

International evidence shows that tourism inflows, foreign buyer demand, and seasonal mobility significantly alter price structures and transaction patterns. Studies from Spain, Portugal, and Greece find that tourism-driven markets display higher transaction velocity, stronger seasonal price variability, and greater exposure to speculative demand (Gallent et al., 2020). These dynamics require brokers to accurately interpret shifting market signals and tailor pricing strategies accordingly.

Research on foreign housing demand highlights the role of brokers as cultural intermediaries. In Portugal's Algarve region, Santos and Menezes (2021) found that brokers who can navigate intercultural communication challenges and regulatory differences consistently outperform competitors. Similar findings were reported in Croatia and Cyprus, where brokers' ability to adapt to the expectations of international clients enhanced transaction success (Marona & Tomal, 2020).

Locational studies emphasize that amenity-driven valuation plays a central role in coastal housing markets. Hedonic pricing analyses from Southern Europe indicate that sea view, coastal proximity, and neighborhood infrastructure can significantly increase property values (Biagi et al., 2021). In such contexts, brokers with strong analytical and valuation skills are better equipped to position listings, justify prices, and negotiate effectively.

Turkey-specific research further reinforces these themes. Studies focusing on İzmir, Muğla, and Antalya reveal that tourism pressure, short-term rental demand, and foreign investor activity shape affordability and price dynamics (Türel & Alkan, 2022). These complex conditions heighten the relevance of advanced competencies—in particular, market analysis, legal literacy, and client segmentation—for brokers operating in metropolitan areas influenced by tourism.

2.4. Integrating Competency Frameworks with Market and Service Insights

Recent scholarship increasingly argues for integrated models that connect human capital attributes with market knowledge and service quality. For example, Olanrele and Fonseca (2022) propose that brokerage performance in competitive urban markets is best predicted by a combination of (i) interpersonal competencies, (ii) technical and regulatory knowledge, (iii) digital capability, and (iv) contextual market intelligence. Similar models in Southeast Asian markets emphasize that competency clusters interact with environmental factors—such as housing supply constraints, foreign demand, and regulatory changes—to shape performance outcomes (Phang & Wong, 2021).

This integrated perspective aligns closely with the demands of the Antalya market, where brokers must simultaneously navigate multi-lingual clients, fast-paced market fluctuations, and regulatory sensitivity related to foreign purchases and rental restrictions. The literature thus provides a strong conceptual foundation for examining broker performance in Antalya through a competency-based, human-capital-driven framework that reflects local market realities.

3. Methodology and Data Analysis

3.1. Research Design

The study employs a quantitative, cross-sectional survey design to examine how different competency domains and contextual factors jointly account for variation in real estate broker performance in Antalya. Cross-sectional designs are widely used in social research when the aim is to model associations among multiple variables at a single point in time without experimental manipulation (Bryman, 2016). Within this design, competencies are treated as predictor variables and a composite performance index as the main outcome. The overarching analytical strategy is explanatory, seeking to identify which aspects of brokers' human capital most strongly predict performance once background factors are controlled.

3.2. Study Area, Population and Sampling

The empirical setting consists of the three central districts of Antalya—Muratpaşa, Kepez, and Konyaaltı—which combine high residential mobility, strong tourism-related housing demand, and considerable socio-economic diversity. Prior work shows that Antalya's housing prices are sensitive to

both structural and locational attributes, with coastal amenities and neighbourhood income levels playing a notable role (Kördiş et al., 2014). More recent analyses highlight the interaction between foreign housing demand and domestic affordability pressures in the province (Akalın, 2024). These characteristics create an environment where brokerage activity is intense and professional competencies are frequently tested in practice.

The target population comprised real estate brokers and consultants employed in both franchise and independent offices in the three districts as of 2025. A stratified purposive sampling strategy was adopted. Strata were defined by (i) office type (franchise vs. independent) and (ii) district, ensuring that the sample would reflect different organizational structures and sub-market conditions. Offices were first identified through local brokerage lists and online platforms; subsequently, consultants meeting the inclusion criteria—active practice and at least six months of experience in the current office—were invited to participate. In total, 118 valid questionnaires were returned and retained for analysis, corresponding to a response rate of 81.9%.

Table 1. Descriptive Characteristics of the Sampled Real Estate Brokers in Antalya (N = 118).

Variable	Category / Metric	Value
District Distribution	Muratpaşa	41 (34.7%)
	Kepez	38 (32.2%)
	Konyaaltı	39 (33.1%)
Office Type	Franchise	64 (54.2%)
	Independent	54 (45.8%)
Age (years)	Mean (SD)	35.2 (7.4)
Professional Experience (years)	Mean (SD)	7.1 (4.8)
Monthly Active Listings	Mean (SD)	20.3 (9.5)
Closed Transactions (past 6 months)	Mean (SD)	12.7 (6.1)

Table 1 summarises the basic sample characteristics. Slightly more than half of the respondents worked in franchise offices (54.2%), while 45.8% were affiliated with independent firms. Respondents' average age was 35.2 years, with a mean of 7.1 years of experience in the real estate sector. On average, brokers managed around 20 active listings per month and had closed nearly 13 transactions in the preceding six-month period.

3.3. Power Analysis

An a priori power analysis was conducted for the planned multiple regression model including five competency predictors and three control variables. Assuming a medium effect size ($f^2 \approx 0.18$), a significance level of $\alpha = 0.05$, and a sample size of $N = 118$, the resulting statistical power exceeded the commonly accepted threshold of $1-\beta = 0.80$. This indicates that the study is adequately powered to detect meaningful associations between competencies and performance (Crook et al., 2011; Pradhan & Jena, 2017).

3.4. Measurement Instrument

Data were collected through a structured questionnaire constructed in line with best-practice guidelines for scale development and validation (DeVellis, 2017; Boateng et al., 2018). Item generation drew on three sources: (i) a review of international competency frameworks and empirical studies in real estate and property management (Adama et al., 2018; Koutroumanis, 2021; Pūkīte, 2017); (ii) practitioner interviews with experienced Antalya brokers; and (iii) selected elements from generic human-capital-based performance models in the HR literature (Crook et al., 2011; Pradhan & Jena, 2017). Draft items were pre-tested with a small group of brokers (n = 12) to assess clarity and face validity; minor wording changes were made before full deployment.

The final instrument comprised two main sections:

1. Background and office information

– Age, gender, years of experience, office type, and active portfolio size (average monthly listings).

2. Competency and performance scales

– Five competency domains and a composite performance index.

All competency items were formulated as statements and rated on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Higher scores indicate stronger self-reported competencies.

The five competency domains were operationalised as follows:

- Communication–Negotiation (CN): items capturing active listening, persuasive communication, management of objections, and conflict resolution (5 items).
- Technical Knowledge (TK): familiarity with real estate legislation, valuation principles, and local market analysis (5 items).
- Ethical Awareness (EA): transparency in information sharing, avoidance of conflicts of interest, confidentiality, and responsible data use (4 items).
- Customer Orientation (CO): accurate identification of needs, solution-focused service delivery, and systematic post-transaction follow-up (5 items).
- Digital Competence (DC): use of CRM systems, online listing platforms, social-media-based marketing, and basic analytics tools (4 items).

Internal consistency was evaluated using Cronbach's alpha and item–total correlations. All scales exceeded the conventional $\alpha \geq .80$ benchmark, indicating high reliability.

Dependent Variable: Total Performance Score (TPS)

Broker performance was operationalised as a Total Performance Score (TPS) constructed from both objective and subjective components:

1. Objective KPIs

- Number of closed transactions in the previous six months,
- Average time-to-close (days) for completed deals, reverse-coded so that shorter times imply higher performance,
- Re-contract or repeat-client rate (%).

2. Managerial ratings

Three items scored on a 1–10 scale by office managers or team leaders:

- goal attainment,
- process discipline and documentation, and
- perceived service quality and client feedback.

Each component was transformed into a z-score, after which an unweighted average was computed to obtain TPS. Higher TPS values represent better overall performance.

3.5. Control Variables

To distinguish the unique contribution of competencies from structural influences, three control variables were included in the regression model:

- Professional experience (years in the real estate sector),
- Portfolio size (average number of active listings per month),
- Office type (dummy coded: 0 = independent, 1 = franchise).

Prior studies suggest that human capital accumulated through experience and exposure to a larger client base can enhance performance, while organizational context may shape access to resources and training (Crook et al., 2011; Aman-Ullah et al., 2022).

3.6. Data Collection Procedures and Quality Checks

Data collection took place between February and April 2025 using both paper-based and online questionnaires. Participation was voluntary and based on informed consent; respondents were assured of anonymity and the exclusive academic use of their data. Returned questionnaires were screened for completeness. Cases with excessive missing data were eliminated, while sporadic missing values were imputed using within-scale mean substitution when justified and when missingness appeared random.

To assess the risk of Common Method Bias (CMB), Harman's single-factor test was applied. An unrotated factor analysis of all items showed that the first factor accounted for 31.8% of the total variance, well below the 50% threshold commonly used as an indicative benchmark (Harman, 1976). This suggests that CMB is unlikely to constitute a serious threat to the study's conclusions.

3.7. Validity and Factor Analysis

The dimensional structure of the competency scales was evaluated through Exploratory Factor Analysis (EFA). Following recommendations in the psychometric literature (Costello & Osborne, 2005; Boateng et al., 2018), principal-axis factoring with oblique rotation was used, given the expectation that competency domains would be correlated. Sampling adequacy was confirmed by a Kaiser–Meyer–Olkin (KMO) value of 0.85 and a statistically significant Bartlett's test of sphericity ($p < .001$), indicating that the correlation matrix was suitable for factor extraction.

A five-factor solution consistent with the theoretical model emerged, explaining 63.2% of the total variance. All items loaded strongly (≥ 0.60) on their intended factors, with minimal cross-loadings. Discriminant validity was supported by the fact that the square roots of the Average Variance Extracted (AVE) for each construct exceeded the inter-construct correlations, in line with standard guidelines for latent-variable measurement (Kline, 2016).

3.8. Analytical Strategy

The empirical analysis proceeded in three stages. First, descriptive statistics were calculated for all variables to characterise the sample and provide initial insight into the distribution of competencies and performance. Second, Pearson correlation coefficients were computed to examine bivariate relationships between the TPS index and each competency and control variable. Third, a multiple linear regression model was estimated to assess the simultaneous effects of the five competency domains and three control variables on TPS.

Prior to regression analysis, standard diagnostic checks were conducted for multicollinearity, normality of residuals, and influential observations. Variance Inflation Factors (VIFs) remained well below commonly used thresholds, indicating that multicollinearity was not problematic. Standardised residuals and leverage values revealed no cases exerting disproportionate influence on the estimates. The final model thus provides a robust basis for evaluating how human-capital-related competencies shape broker performance in Antalya.

4. Results and Discussion

4.1 Descriptive Patterns of Competencies and Performance

The descriptive analysis revealed notable variation in competency levels across consultants working in Antalya's central districts. Ethical awareness and customer orientation obtained the highest average scores, reflecting a strong emphasis on trust-building and client engagement in a tourism-intensive metropolitan market. Digital competence, while still above midpoint values, displayed the lowest mean score, indicating that despite the expansion of online platforms, brokers' digital skill sets have not fully matured. The Total Performance Score (TPS) showed substantial dispersion, suggesting that performance is unevenly distributed and shaped by differences in both competencies and market exposure.

Table 2. Summary of Competency and Performance Indicators (N = 118)

Variable	Mean	SD	Min	Max
Communication–Negotiation (CN)	3.92	0.60	2.4	4.9
Technical Knowledge (TK)	3.79	0.57	2.1	4.8
Ethical Awareness (EA)	4.18	0.53	2.7	5.0
Customer Orientation (CO)	4.02	0.59	2.5	5.0
Digital Competence (DC)	3.63	0.69	2.0	4.8
Total Performance Score (TPS, z-score)	0.00	1.00	−2.14	2.43

Note: All scales measured on 1–5 Likert scale except TPS.

These descriptive results underscore Antalya's market characteristics: strong client-facing skills but uneven adaptation to digital systems, even though digital visibility matters greatly in a location where short-term rentals, international buyers, and high-volume seasonal listings dominate market activity.

4.2. Correlation Analysis

Correlation coefficients indicated statistically significant and positive relationships between TPS and all competency domains. Customer orientation and communication–negotiation showed the strongest correlations, reinforcing the idea that performance is heavily dependent on relational and persuasive capabilities. Technical knowledge correlated moderately with TPS, while digital competence showed a meaningful but slightly weaker association.

Ethical awareness had the smallest correlation, yet remained significant, suggesting that ethical conduct contributes indirectly to longer-term transactional outcomes through trust and reputation rather than immediate sales.

Experience and portfolio size also displayed positive correlations with TPS, consistent with the expectation that accumulated market knowledge and broader exposure enhance brokers' productivity.

4.3. Regression Results

A multiple linear regression model was estimated to assess the simultaneous effects of all competencies and control variables. The model explained 56% of the variance in TPS, indicating strong explanatory power for a human-capital-oriented framework in a complex service market.

Table 3. Regression Estimates for TPS (N = 118)

Predictor	β (Standardized)	t	p
Communication–Negotiation	0.24	3.29	0.001
Technical Knowledge	0.20	2.78	0.006
Ethical Awareness	0.09	1.58	0.117
Customer Orientation	0.31	4.02	<.001
Digital Competence	0.13	2.11	0.037
Experience	0.12	2.03	0.045
Portfolio Size	0.14	2.28	0.024
Office Type (Franchise=1)	0.06	1.21	0.229

The significant predictors—customer orientation, communication–negotiation, technical knowledge, digital competence, experience, and portfolio size—collectively support the hypothesis that brokerage performance is fundamentally shaped by human capital rather than organizational branding.

Ethical awareness was positive but not statistically significant, though its theoretical relevance remains intact.

The results highlight that performance in Antalya's brokerage market is primarily competency-driven, aligning with broader human capital theory and recent service-sector evidence. The city's unique housing dynamics—marked by foreign demand, tourism-driven turnover, and substantial seasonal variation—appear to amplify the importance of interpersonal and analytical capabilities.

4.4. Dominance of Relational Competencies

Customer orientation emerged as the strongest predictor of performance. This reflects the city's heterogeneous client base, where consultants must adjust their practices to serve domestic buyers, foreign investors, short-term rental seekers, and relocating professionals. Consultants who can diagnose needs accurately, communicate value propositions effectively, and maintain systematic follow-up are more likely to secure repeat clients and referrals.

Communication–negotiation skills also exerted a substantial influence on TPS. In a market where price bargaining, multi-party communication, and high turnover are the norm, brokers who negotiate confidently and transparently can accelerate transactions and reduce uncertainty for clients.

4.5. Importance of Technical Knowledge and Digital Capability

Technical knowledge—understanding regulations, valuation principles, and market dynamics—was an important performance determinant. This is consistent with Antalya's price structure, which empirical studies show is heavily shaped by micro-location variables, amenity bundles, and regulatory frameworks related to foreign ownership.

Digital competence played a meaningful role as well. Brokers who leverage CRM systems, online listing optimisation, and social-media marketing tend to expand their client reach and respond more rapidly to inquiries. Although digital competence had the lowest mean score, its significant predictive power indicates an important opportunity for capacity building among Antalya's consultants.

4.6. Experience and Market Exposure

Both experience and portfolio size enhanced TPS, suggesting that accumulated "practice-based

knowledge" and wider exposure improve brokers' ability to navigate client diversity and market fluctuations. However, the lack of a significant effect for office type confirms that franchise branding does not provide a performance advantage once individual competencies are considered.

4.7. Ethical Awareness: A Foundational but Indirect Contributor

Ethical awareness did not significantly predict TPS in the regression model, despite positive correlations. This lends support to the notion that ethics functions as a foundational, reputation-building construct whose effects manifest over long time horizons rather than in short-term KPIs.

5. Conclusion

This study set out to examine how human-capital-related competencies shape the professional performance of real estate brokers operating in Antalya, Türkiye. Using data from 118 consultants across the districts of Muratpaşa, Kepez, and Konyaaltı, the research integrated five competency domains with a composite performance index that combined objective KPIs and managerial assessments. The findings show that the proposed competency-based model explains a substantial share of performance variation—approximately 56% of the variance in TPS—and that performance in Antalya's brokerage market is driven primarily by individual human capital rather than by office affiliation alone.

Among the competency domains, customer orientation and communication–negotiation emerged as the most influential predictors of performance, followed by technical knowledge and digital competence. Brokers who systematically diagnose client needs, maintain close contact throughout the transaction, and provide post-sale follow-up achieve higher performance scores, reinforcing the view that long-term success in brokerage depends on relationship quality and perceived service value (Counts & Hemphill, 2010; Pūkīte, 2017). Strong communication and negotiation skills further enhance performance by enabling consultants to manage expectations, resolve conflicts, and arrive at mutually acceptable terms in a market characterised by diverse client profiles and heightened price sensitivity.

The significant contribution of technical knowledge confirms that mastery of legal frameworks, valuation principles, and local market trends remains a core element of brokerage professionalism. In a city such as Antalya—where empirical work has shown that micro-location, housing attributes, and amenity profiles strongly influence prices (Kördiş et al., 2014)—consultants who can interpret and communicate such information credibly are better positioned to guide clients and close transactions efficiently. At the same time, the positive role of digital competence indicates that technology-enabled practices such as CRM-supported client tracking, online listing optimisation, and digital marketing are no longer optional add-ons but integral components of competitive brokerage performance.

Ethical awareness displayed a smaller but still positive association with performance. This pattern is consistent with studies suggesting that ethical conduct and integrity often exert their strongest influence through long-term trust, reputation, and repeat business rather than through short-term sales indicators (Aman-Ullah et al., 2022; Isah Leontes & Hoole, 2024). In Antalya's heated housing market, where concerns about affordability and foreign demand are highly visible (Akalın, 2024), maintaining transparent, responsible practices is likely to be crucial for sustaining legitimacy and client loyalty over time.

Regarding control variables, both professional experience and portfolio size were positively related to performance, suggesting that brokers benefit from learning-by-doing and from wider exposure to diverse cases and client types. In contrast, office type (franchise vs. independent) did not exert a statistically significant effect once individual competencies were taken into account. This finding resonates with broader human capital research indicating that organizational systems and brand recognition cannot fully compensate for deficits in individual skills and capabilities (Crook et al., 2011; Pradhan & Jena, 2017). For practitioners, this implies that recruitment and development strategies should prioritise competency profiles at least as much as corporate affiliations or office size.

The study makes three main contributions. First, it provides region-specific evidence from Antalya, a city where tourism, migration, and foreign housing demand interact to produce distinctive market dynamics that place high demands on brokerage competencies. Second, it offers a validated measurement framework that links clearly defined competency domains to a performance index incorporating both output and process indicators. This framework can be adapted by brokerage firms, professional associations, and training institutions for performance appraisal, talent management, and curriculum design. Third, by situating brokerage within the broader human-capital literature, the study underscores that performance is a multi-dimensional construct shaped by behavioural, cognitive, and technological capabilities rather than by transaction counts alone (Aman-Ullah et al., 2022; Isah Leontes & Hoole, 2024).

At the same time, several limitations should be acknowledged. The cross-sectional research design precludes causal inference regarding the directionality of relationships between competencies and performance. The reliance on self-reports for competency measures may also introduce perceptual bias, despite the inclusion of externally rated performance indicators and diagnostic tests for common method variance. Future research could extend the analysis by incorporating longitudinal designs, multi-source competency assessments (e.g. client and peer ratings), and comparative samples from other Turkish cities with different housing structures and demand profiles. Qualitative studies exploring how brokers navigate ethical dilemmas, intercultural communication, and digital transformation in practice would further enrich the understanding of human-capital-driven performance in real estate brokerage.

In conclusion, the Antalya evidence confirms that brokerage performance is best understood as a human-capital outcome. Consultants' abilities to build relationships, communicate effectively, deploy specialised knowledge, and exploit digital tools jointly shape the value they create for clients and organisations. Competency-based assessment frameworks such as the one proposed here therefore offer a promising route for raising professional standards and supporting the sustainable development of Türkiye's real estate brokerage sector.

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