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Reassessing Discounted Cash Flow Valuation: Industry Adoption and Regulatory Challenges in South Africa

Abstract

Purpose: To examine why discounted cash flow (DCF) remains marginal in South African secured-lending valuations and assess whether semi-digitised workflows can shift adoption intent.

Design/methodology/approach: Predominantly qualitative study with limited quantification where possible (descriptive statistics): 12 semi-structured interviews (valuers and bank risk specialists), a structured survey of panel valuers exposed to a semi-digitised DCF workflow; coded themes and descriptive statistics are reported.

Findings: The current industry practice is income-capitalisation centric. Yet, after viewing a semi-digitised DCF workflow (a research instrument developed for this study), 94% found it easy to understand, and 94% indicated they would or likely would use it; 69% said it addresses prior challenges, 81% that it helps manage complexity, and 75% perceived efficiency gains. Interviews highlight efficiency, standardisation, and data clarity as enablers, but training gaps, fragmented market data, and behavioural inertia remain headwinds.

Practical implications: Basel standards apply to banks' capital models—not to valuers' choice of method. Lenders can request an optional/additional investment-DCF baseline alongside Market Value for internal risk analysis. Adoption is most likely with targeted training, common data standards, and proportionate digitalisation aligned with professional guidance (e.g., RICS).

Originality/value: Provides South Africa–specific evidence on adoption barriers and behavioural change, with a clear regulatory narrative and a practical digitalisation route that preserves professional judgement.

Keywords: DCF; income capitalisation; Basel; IVSC; RICS; IPRE; South Africa; digitalisation; adoption

Introduction and Study Rationale

Across developed markets, explicit DCF analysis is typically used for larger income-producing real estate (IPRE) portfolios such as Real Estate Investment Trusts (REITs), whereas South African secured-lending valuations remain dominated by the income-capitalisation model. This has implications for transparency because single-period models can mask lease-level risks that are material to credit analysis. At the same time, the Basel framework governs banks' regulatory capital and does not prescribe a valuation method to valuers. This paper reassesses DCF through two lenses: industry adoption (barriers and enablers) and prudential context, and tests whether semi-digitised workflows can shift willingness to use DCF.

By analysing professional choices and the impact of digitalisation, the study explores pathways for modernising property valuation practices. It addresses the reluctance to adopt DCF due to data availability concerns and investigates how digital tools can enhance valuation accuracy and reliability (Gamage & Perera, 2023; Naeem *et al.,* 2023; Pienaar, 2015).

Valuation and financial modelling in real estate face challenges due to economic changes, regulatory requirements, and technological advancements. The 2007-2008 monetary crisis highlighted the flaws in information and reliance on rating agencies, leading to unsustainable transactions and inflated property valuations (Baily *et al*., 2009). In response, the Basel Committee updated regulations to improve financial stability and promote conservative valuation criteria. While the Basel Committee does not require the DCF model for investment purposes, the method supports more conservative valuations by enabling the use of whichever value is lower—DCF or market comparison - an approach considered prudent.

Crosby and Hordijk (2021, 2024) explored a long-term prudent value model for UK and European CRE lending markets, finding it impractical at the individual property level but viable at the portfolio level. Furthermore, Crosby and Hordijk (2021, 2024) further suggest that adopting explicit DCF for investment purposes as an additional optional valuation model for Bank valuers of IPRE may enable the enhancement of Basel models and address risks not explicitly captured in current valuation methods used in South Africa. Hence, the potential of improving the adoption of the DCF model in South African secured-lending valuations was the key focus of this exploratory study.

Literature Review

Real estate valuation for income-producing assets has evolved over several centuries, with early income-based approaches documented as far back as the 1600s (Jeffries, 2017). Twentieth-century innovations, including Ellwood's mortgage-equity models and the emergence of formalised yield-based techniques, provided the foundations for modern investment valuation (Ellwood, 1959). The development of the discounted cash flow (DCF) technique offered a structured means of modelling multi-period cash flows, later becoming a prominent, though contested, model for appraising investment property (Enever *et al.,* 2014). McDonald (2015) focused on how investors determine capitalisation rates based on assumptions, with the DCF model providing explicit calculations that clarify assumptions

used in valuations. French (2006) also supports this. Reinert (2019) compared another explicit valuation model, namely the German Income Method and DCF, finding DCF more dynamic and flexible but providing less stable capital growth, although this German income model is not widely known in South Africa.

The DCF technique for investment property valuations developed over centuries, and several publications have examined this complex evolution, most notably the work of Jeffries (2017).

A central conceptual distinction in contemporary practice is between implicit valuation models (e.g. income capitalisation) and explicit DCF.

The implicit income-capitalisation model (as followed in South Africa) converts a single period (one-year income period) into a capital value by using a single capitalisation rate. This capitalisation rate is derived from comparable recent sales transitions in the market. Future income periods are not considered.

Explicit DCF models period-by-period cash flows and reversion, thus considering future income periods. This model is explicit in the sense that it makes assumptions more transparent and traceable than implicit models such as income-capitalisation (French, 2006; French, 2012; RICS, 2023).

While reconcilable under standard assumptions, explicit DCF provides visibility into risk timing, lease events, and income volatility—features of particular relevance for credit risk analysis.

Despite its conceptual strengths, explicit DCF adoption remains limited in many jurisdictions, including South Africa. Prior studies attribute this to perceptions of complexity, scarcity of reliable input data, and disagreement on appropriate discount rates (Baum *et al.,* 2021; Pienaar, 2015; Cifuentes, 2016). Forecasting future rental levels introduces inherent uncertainty; analyses by Stevenson, Papastamos & Matysiak (2018) show that forecasting volatility often reduces valuer confidence in multi-period models. Challenges identified as far back as Skolnik (1993) persist: rule-of-thumb practices remain entrenched, and long-term assumptions are often viewed as speculative.

Discount-rate debates further inhibit DCF uptake. Research highlights the lack of consensus on risk-adjusted rates (Crosby & Hordijk, 2021; Lusht, 1986), while misconceptions about rate construction—such as undue reliance on bond yields—continue to distort application (Kishore, 1996). Survey evidence from Pienaar (2015) confirms that valuers perceive DCF as data-heavy and assumption-sensitive, favouring the implicit income-capitalisation model (69%) over explicit DCF (31%) primarily for practicality. Education levels and exposure to financial modelling can moderate these perceptions, suggesting that capability, rather than model, constrains uptake. Researchers (Baum, 2008; French *et. al.*, 2004; Altus Group, 2023; Pienaar, 2015; Cifuentes, 2016) attribute the slow adoption of DCF models to their perceived complexity.

Behavioural economics provides an additional explanatory layer. Cognitive Dissonance Theory predicts resistance when new models conflict with established professional identities or routines; Prospect Theory (Kahneman & Tversky, 1979; 1992) explains risk aversion in the face of complexity and uncertainty. sectors findings on digitalisation in the property

sector support this view, showing that decision-makers often rely on heuristics when confronted with unfamiliar analytical tools or large information sets, particularly where financial stakes are high (Cook & Cloete, 2023).

Digitalisation has been promoted as a way to reduce computational burden, improve input consistency, and enhance transparency in valuation processes. Case studies and experimental research demonstrate that technology can reduce appraisal errors and improve decision consistency when appropriately integrated into practice (Evans *et al*., 2019). Internationally, professional bodies such as RICS (2023) have emphasised that digital workflows can make explicit DCF more accessible and auditable by standardising data capturing and modelling assumptions.

However, digitalisation alone does not guarantee model adoption. Evidence suggests that valuers adopt new tools only when these tools simplify tasks without undermining autonomy, and when data availability and reliability are sufficiently high (Boyd, 2003). The South African market remains characterised by fragmented rental data, limited disclosure, and inconsistent reporting standards—all factors that complicate cash-flow modelling.

Following the 2007–2008 financial crisis, the Basel III framework introduced substantial reforms to strengthen the resilience of banking systems globally (Basel Committee, 2017; Prudential Regulation Authority, 2022). These updates addressed several weaknesses in the pre-crisis regulatory environment and aimed to promote a more stable and robust banking sector. Banks play a central economic role through deposit-taking and credit-extension activities, which expand the money supply and facilitate access to credit for real estate investment (Mpofu, 2015).

In the context of property-backed lending, regulatory capital requirements depend on accurate estimation of key risk parameters—Probability of Default (PD), Loss Given Default (LGD), and Exposure at Default (EAD) (Scott, 2016; Fouche, 2008). Each parameter relies on forward-looking assessments of income stability, covenant headroom, and potential recovery values.

International research shows that explicit DCF outputs—such as NOI paths, vacancy scenarios, letting-up assumptions, capital expenditure requirements, and DSCR trajectories—offer information directly relevant to assessing long-term borrower solvency and collateral volatility. European prudential initiatives, including work by Crosby and Hordijk (2021; 2024), highlight the growing policy interest in more transparent and granular cash-flow-based modelling, even as regulators acknowledge the difficulty of imposing property-level prudent-value calculations (IVSC, 2024).

Importantly, the Basel framework does not prescribe valuation methods for valuers; it influences banks' internal modelling frameworks. This distinction matters in South Africa, where valuation practices remain largely market-value oriented, but bank-internal risk processes require detailed forward-looking analysis.

To study whether digitalisation could shift adoption intent rather than to evaluate any particular software, this research employed a semi-automated DCF workflow as a research instrument specifically prototyped for this study. The prototype was constructed for research

and educational purposes to examine how valuers respond behaviourally when presented with a structured, reconciled DCF baseline. The workflow converts income-capitalisation inputs into an explicit DCF model and permits adjustment of lease-level, market, and downside assumptions.

To ensure controlled access, the prototype was temporarily hosted within a commercial bank's valuation environment. It is neither a prescribed model, nor an official system feature, nor a commercial product. Its role in this study is limited to eliciting valuers' perceptions of digital technology's ability to improve transparency, usability, and complexity management—thereby illuminating barriers and enablers of explicit DCF adoption.

Research Methodology

This study adopted a qualitative-dominant mixed-methods design, suitable for exploring the behavioural, organisational, and technical factors influencing valuers' methodological choices. The design aligns with the study's two research aims:

(1) to understand the barriers and enablers affecting explicit DCF adoption in South African secured-lending valuations, and

(2) to assess whether exposure to digital technology, in this case a structured, semi-automated DCF workflow, influences valuers' willingness to consider the DCF model in practice.

Data were collected from commercial property valuers and bank risk specialists who operate directly in the secured-lending environment. Two groups were recruited:

Valuers employed by a major South African commercial bank, and

Independent valuation professionals active on commercial lending panels.

A structured questionnaire requesting voluntary participation was distributed to 68 valuation professionals, with an anticipated response rate of 10–20%. Sixteen usable responses were received, consistent with expectations for exploratory attitudinal work in a specialist professional domain.

For the qualitative component, 12 semi-structured interviews were conducted:

Nine with practising valuers, and

Three with national and international bank experts involved in the design or implementation of credit risk models.

Although the total number of participants is modest, the 12 interviewees were selected purposively for their seniority, professional authority, and direct involvement in credit-risk-related valuation practice. This purposive sampling enhances informational

richness and ensures that findings reflect the perspectives of practitioners who exert influence over methodological norms in the South African secured-lending market.

To support the behavioural component of the study, participants were exposed to the research instrument, a prototype semi-automated DCF workflow. The prototype was designed solely as a controlled intervention tool to observe valuers' reactions to a structured, explicit cash-flow model. It was not developed or evaluated as a commercial product, valuation system enhancement, or prescriptive model.

The workflow translated standard income-capitalisation inputs into an explicit multi-period DCF model, allowing participants to adjust assumptions such as lease events, escalations, operating expenses, vacancies, and downside scenarios. Its purpose was to provide a consistent, low-friction environment in which valuers could experience an explicit DCF process without the cognitive overhead of building a DCF model from scratch.

To ensure secure and consistent access, the prototype was temporarily embedded within the internal valuation environment of a commercial bank. It remained an unofficial, non-prescribed, and non-commercial feature, used exclusively for this research. Participants were shown a guided demonstration of its functionality and could interact with the tool directly.

The survey collected descriptive data on existing model preferences, perceived challenges, and respondents' reactions to the prototype workflow. As the sample size was small and the study was exploratory, quantitative results were restricted to descriptive statistics, supplemented by simple comparative tests where appropriate. These results are interpreted cautiously and used primarily to substantiate the qualitative findings (obtained from the semi-structured interviews with the 12 independent valuation professionals) through the process of triangulation, rather than to support generalisable claims.

The interview data were analysed using thematic analysis, supported by Atlas.ti software to ensure transparency, systematic coding, and analytical rigour. Themes were developed iteratively and aligned to the research questions with particular attention to behavioural drivers, regulatory awareness, digitalisation readiness, and perceived model risks.

Ethical clearance was obtained through the relevant university procedures. Participants provided informed consent, and all data were anonymised to protect confidentiality. Secondary data—such as published industry guidance, regulatory documents, and academic literature—were used to triangulate participant insights and situate findings within established valuation and credit-risk frameworks.

Results

This section presents the findings from the interviews and survey. Because the study is exploratory and based on a modest sample size, all results are presented descriptively and without claims to generalisability.

Interview Findings

Twelve semi-structured interviews were conducted with valuation practitioners and bank-based risk specialists. Participants included external independent valuers, internal valuers from a major South African bank, a global valuation executive, and specialists involved in risk-model implementation. The interview data revealed six broad themes: behavioural influences on model choice, practical considerations in day-to-day valuation work, the impact of digitalisation, regulatory awareness, challenges related to digital adoption, and stakeholder perspectives. The themes below summarise participants' descriptions of their current practices and experiences.

Potential for Behavioural Shifts in Valuation Practices

Participants highlighted the significance of data accuracy, security, and alignment with assumptions. Several interviewees commented on the challenges brought about by the way data is currently accessed and processed. These challenges brought about the behavioural shift (initially from manual data collection and processing to the use of digital tools, and the current shift towards the need for improved digital technology), which was found in most participants who require better data accuracy and consistency. For example, one participant noted:

"Data accessibility is handled poorly, with no centralised system for storing and retrieving valuation data, leading to a manual and time-consuming process."

The importance of transparency in valuation assumptions was emphasised:

"Valuation is about being transparent about the methods and assumptions used."

Participants referenced inconsistent data formats and the associated need for manual checks. As one valuer explained:

"Tools have helped convert PDFs and streamline data capturing, making it easier to analyse and process information. The lack of conformity in data formats and the need for human intervention to ensure accuracy can be time-consuming."

Digital tools were frequently described as improving accuracy and efficiency:

"Digitalisation has influenced property valuation practices by speeding up processes and reducing human error. Access to online platforms for data…has simplified the research process."

There was also emphasis on methods consistency:

"Consistency in valuation methodologies (sic) is crucial to ensure that the resulting data is reliable and comparable."

The interviews highlighted the importance of data accuracy, security, and alignment with assumptions (Figure 1).

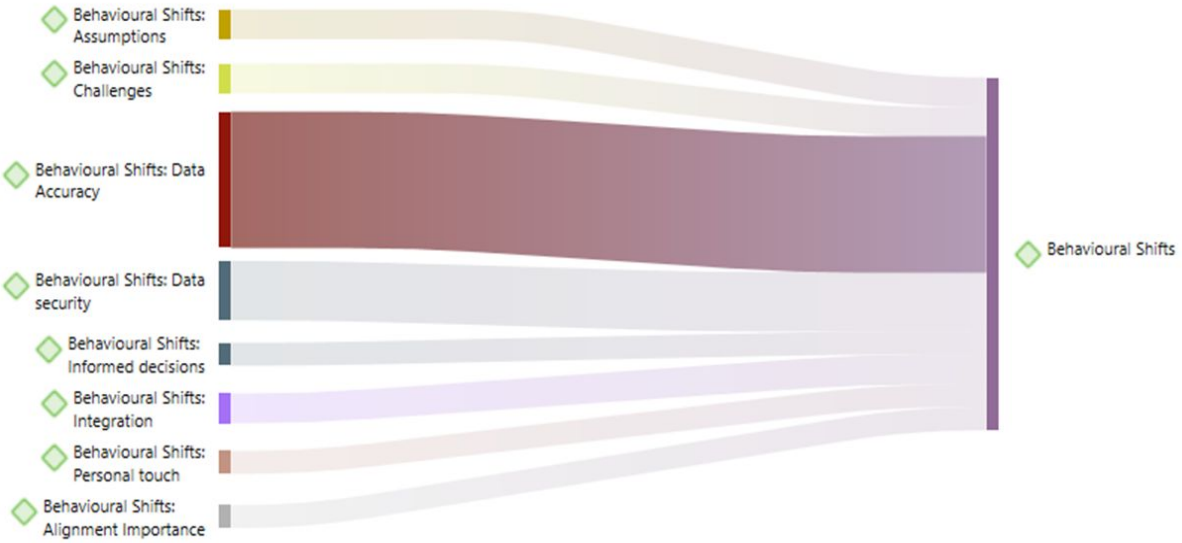

Figure 1: Sub-themes related to Behavioural Shifts (Author)

Valuation Method Preferences

Preferences for valuation approaches varied, but most participants described continued reliance on the income-capitalisation model:

"The income capitalisation method (sic) is widely accepted in South Africa and is preferred by courts due to its reliability and fewer presumptions compared to the DCF model."

Internal valuers described its relevance to bank-specific decision-making:

"The income capitalisation method (sic) considers the net annual income, expenses, and tenant risk to determine the property's value."

Others noted that different user groups may require different outputs:

"Providing clients with numbers in a format they can use for decision-making…is why DCF is often recommended for investment valuations."

Several participants highlighted the complexity of DCF:

"The DCF (model) is complex and requires a lot of assumptions, which can lead to inaccuracies."

The continued relevance of the valuer's individual judgement was stressed:

"Despite technological advancements, the human element in valuations remains crucial and cannot be fully replaced by AI or other technological tools."

Behavioural Factors Mentioned by Participants:

Several quotes reflected behavioural patterns influencing the choice of method:

Familiarity and comfort:

"The income capitalisation method (sic) is commonly used in the banking space due to its reliance on present figures rather than projections."

Limited understanding of digital models:

"Programs like Argus are widely used… There is often a lack of understanding among valuers about how the system's calculations work."

Influence of education level:

"Valuers with tertiary degrees in Real Estate or Property Studies displayed a more positive view of the DCF model."

Reliance on experience:

"Experience and working in the field play a more significant role in handling complex valuations than formal education."

Data dependence:

"Use historical data and market trends to make informed assumptions for the DCF model."

Practical Implications (Figure 2)

Participants discussed practical aspects affecting valuation work. Digital tools were viewed as improving standardisation and data reliability:

"Digitalisation can help standardise processes and provide more reliable data, leading to better-informed valuation practices."

Some interviewees observed inconsistencies between manual calculations and automated outputs:

"There is often a disconnect between the valuer's calculations and the automated outputs from systems like Argus."

Training and familiarity with tools were often mentioned:

"Education and training involved extensive work with Excel and exposure to automation concepts, but industry practices have led me to prefer pre-populated bank templates."

The importance of understanding models was repeated across interviews:

"Valuers must understand the models they use and not rely solely on pre-populated processes."

Participants also described practical steps to improve work quality:

"Providing clear, easy-to-follow guidelines and leveraging historical data to inform valuations."

Future expectations also emerged:

"The future of property valuations is evolving with ongoing digitalisation."

One risk specialist emphasised caution in data handling:

"It is essential to avoid double-counting and eroding historical data."

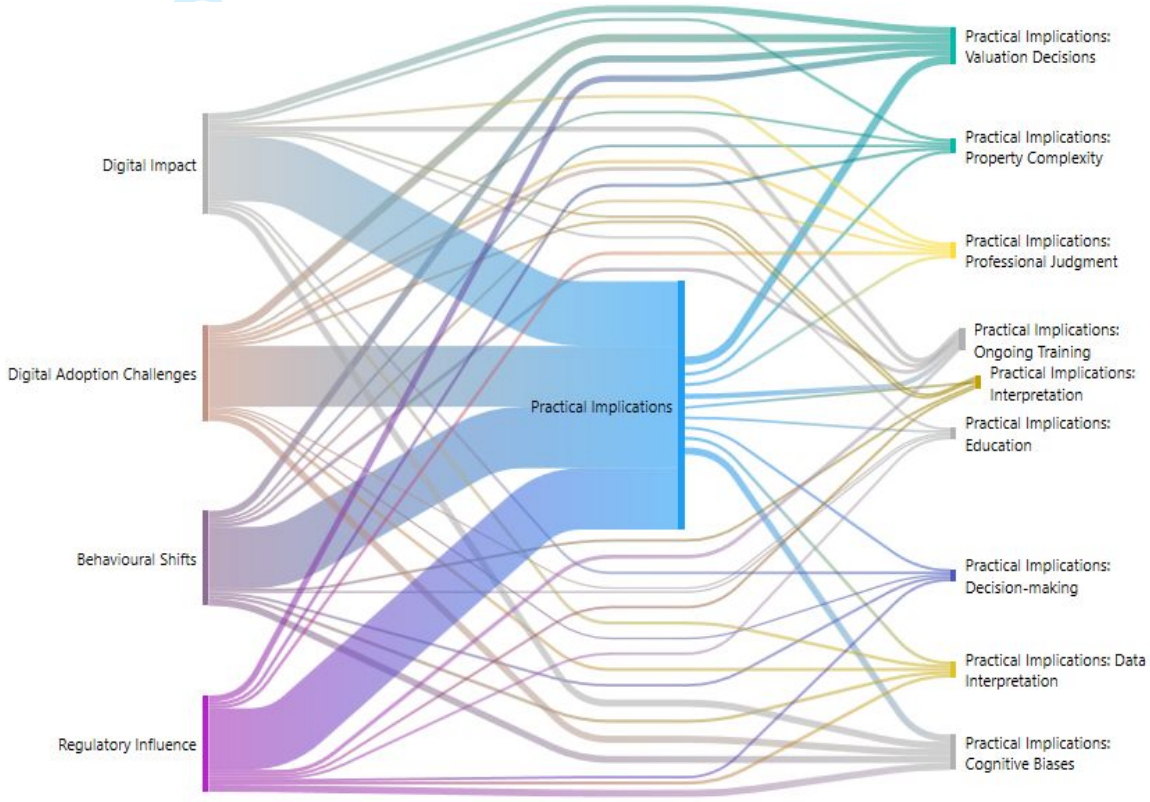

Figure 2 Sankey Diagram: Practical Implications (Author)

Impact of Digitalisation on Valuation Methods

Digitalisation was one of the most frequently mentioned topics. Participants described improvements in consistency and data access resulting from the use of digital technology:

"Digitalisation has revolutionised how we gather and analyse data, making the process more efficient and reliable."

Online platforms, including Lightstone and Deeds Office data, were repeatedly cited as essential tools:

"Digitalisation has influenced property valuation practices by making processes easier and more efficient."

Some interviewees described the possibilities of automation to support valuation tasks:

"Leveraging historical data to inform valuations can bridge the gap between theoretical models and real-world outcomes."

"Automation can reduce human error and increase the speed of valuations."

Participants also commented on the quality of data made available through digital processes:

"Digitalisation has revolutionised how we gather and analyse data, making the process more efficient and reliable."

Regulatory Influence:

Participants described varying levels of awareness of the regulatory context. Some highlighted the importance of professional judgement:

"Professional judgement and expertise of valuers are essential, especially in contexts that might involve litigation."

Digitalisation was seen as supporting consistent regulatory compliance:

"With ongoing digitalisation and regulatory changes, standardising processes and providing more reliable data can lead to better-informed valuation practices."

Regarding prudent value, the global valuation executive noted:

"The EU has implemented prudent values into their credit regulation agreements."

Risk-modelling specialists highlighted implications for portfolio risk:

"Prudent valuations could lead to higher recovery rates in default scenarios."

Initial unfamiliarity was common:

"While DCF can highlight potential future risks… I prefer to use it sparingly due to the many assumptions involved."

Implementing valuation practices, particularly in the context of Basel regulations, requires a thorough understanding of regulatory requirements (Figure 3).

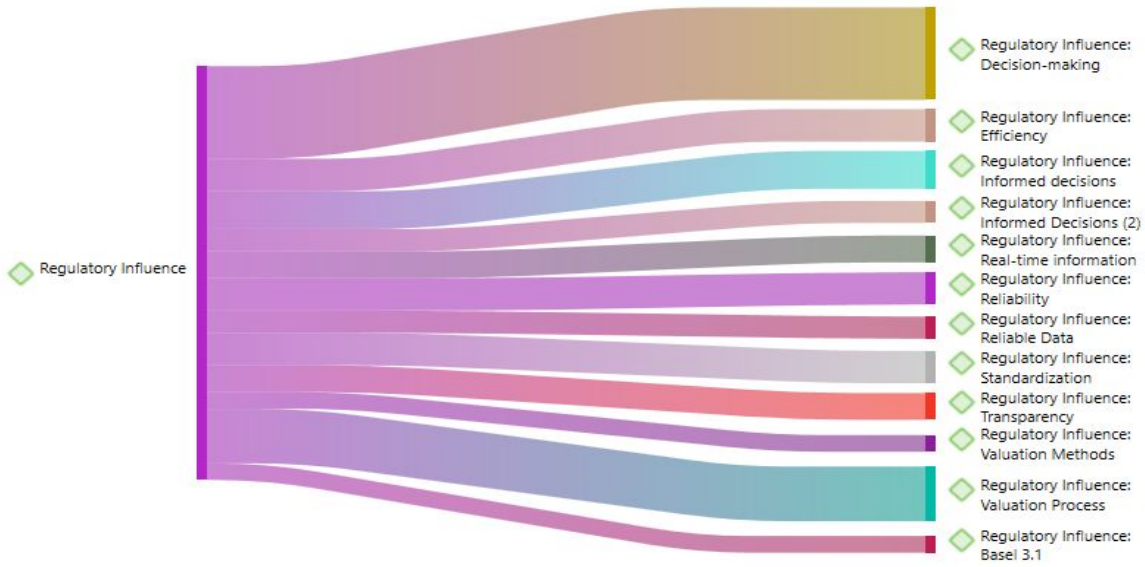

Figure 3: Sub-themes related to Regulatory Influence (Author)

Challenges and Barriers to Digital Adoption (Figure 4)

Participants described several barriers to adopting digital tools. These included data-related challenges due to insufficient data availability:

"The importance of selecting appropriate valuation methods based on available market data."

Forecasting challenges due to insufficient inclusion of qualitative data were also noted:

"Qualitative information about future risks is as valuable as quantitative data."

Resistance to change was raised frequently:

"Some colleagues might be reluctant to adopt new technologies, preferring traditional methods."

Cost was identified as a practical barrier:

"Digitalisation has helped in eliminating errors and ensuring consistency… although the cost of such software can be a barrier."

Consistency concerns were linked to regulatory expectations:

"Consistency in applying valuation methodologies (sic) across all properties is crucial to maintain reliability."

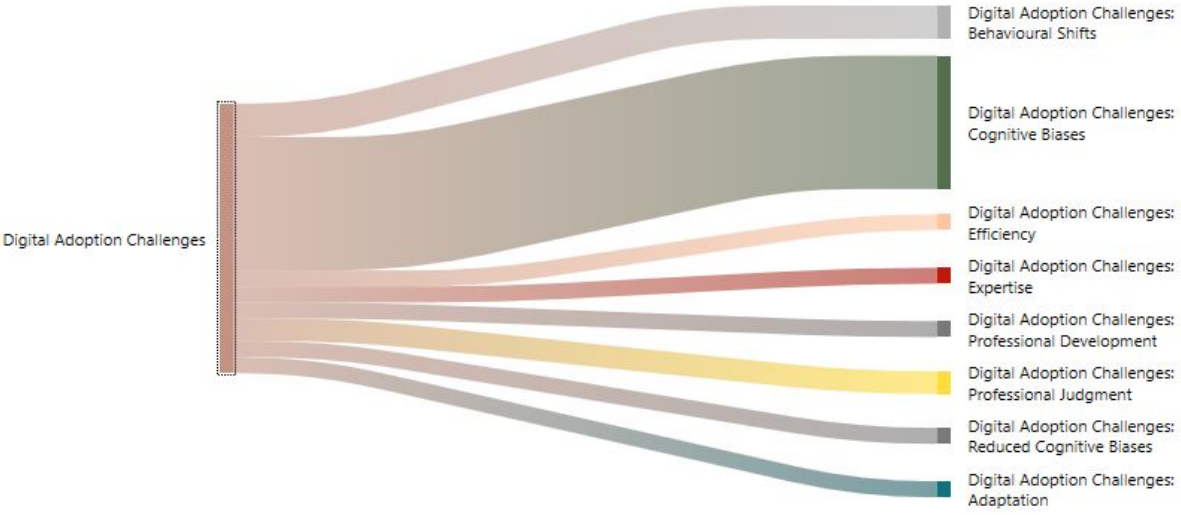

Figure 4: Sub-themes related to Challenges and Barriers to Digital Adoption (Author)

Stakeholder Perspectives

Some participants described a lack of centralised data systems:

"There is no centralised system for storing and retrieving valuation data."

Others highlighted the importance of sharing structured information underlying digital processes:

"Valuers must understand the models they use and not rely solely on pre-populated processes."

Stakeholders noted the value of qualitative indicators:

"Qualitative indicators should not be mere guesses but informed by other metrics and insights."

Real-World Examples:

Participants referenced existing industry tools:

"Programs like Argus are widely used, especially by companies like JLL and CBRE."

Valuers described how online data sources support their work:

"Digitisation has assisted in making the valuation process easier… particularly in terms of research and obtaining information."

Risk specialists described the value of scenario-based approaches:

"Scenarios from economic units could inform prudent valuations, providing a more comprehensive view."

Survey Findings

Sixteen valuers completed the questionnaire (response rate 23.5%). Although modest, this sample aligns with expectations for voluntary responses from specialist bank-panel valuers and is treated as exploratory. The survey results reinforce and extend the interview findings by providing quantitative patterns and respondent-generated explanations regarding valuation method preferences, perceived challenges, and reactions to the digitalised DCF workflow.

Before the introduction of the digital tool (the semi-automated prototype DCF workflow), respondents reported varied levels of DCF usage: 18.75% used the model very often, 37.50% often, 25% seldom, and 18.75% very seldom. The two most significant barriers identified in relation to the DCF model were its complexity (37.5%) and reliable data scarcity (31.25%). These barriers confirm that the implicit income-capitalisation model remains dominant in daily practice, consistent with interview insights and findings by Pienaar (2015).

These findings directly reflect interview insights pointing to fragmented data systems, inconsistent formats, the absence of centralised databases, and valuers' reliance on qualitative judgment when quantitative market data are unclear.

To manage complexity, valuers reported using software tools (25%) and cross-checking results against alternative models (18.75%). Likewise, to address data scarcity, respondents frequently relied on historical data and trends (25%), as well as industry databases and reports (18.75%), supporting the interview finding that valuers default to familiar and easily accessible data when forecasting becomes uncertain.

Prior to the digital tool's introduction, several improvements were recommended: better access to data (25%), enhanced software (18.75%), and additional training (18.75%).

After respondents were introduced to the semi-automated digital tool—which reconciles income-capitalisation inputs into a structured multi-period DCF in line with RICS (2023)—69% indicated that the tool addressed their earlier challenges acceptably or very well, while only 25% expressed dissatisfaction. In terms of usability, 93.75% found the tool very easy or easy enough to understand.

Regarding its ability to manage complexity, 81.25% of respondents believed the tool would help significantly or somewhat. This directly supports the interview finding that automation helps reduce cognitive load. The likelihood of future use was also strong, with 93.75% indicating they would definitely or likely use the tool.

Assessment of data accuracy, efficiency, and user experience showed further positive sentiment: 50% were very or somewhat confident in the tool's data accuracy (with 37.5% neutral due to limited exposure), 75% reported improved efficiency (half citing significant improvement), and 56.25% rated their user experience as excellent or good. Recommendation rates were strong, with 75% indicating that they would recommend the tool.

When comparing the two data sets (results obtained from the interviews with results from the survey), the findings were substantiated. The survey findings reinforce five key patterns also identified in the interviews. First, there remains a continued preference for the income-capitalisation model, underpinned by familiarity, perceived reliability, lower data

requirements, and alignment with bank-panel expectations. Second, data limitations continue to restrict wider use of explicit DCF models, with respondents frequently referring to fragmented systems and scarce operating-cost or rental evidence. Third, while digital tools are viewed favourably, they do not entirely remove barriers without adequate training, stable data pipelines, and system integration. Fourth, behavioural influences remain strong—cognitive load, habit, risk aversion, and a preference for simple, defensible models all shape model choice. Finally, the secured-lending environment itself shapes model preferences: respondents emphasised market-value reporting norms, the separation between valuation and credit-risk analysis, and uncertainty about how explicit DCF integrates into institutional processes.

Overall, the survey results complement and substantiate the interview findings, illustrating how practical, behavioural, and institutional factors collectively influence the adoption and perceived usefulness of explicit DCF modelling in South African secured-lending valuations. When triangulating these findings against secondary data (industry publications, regulatory documents, and academic literature), further substantiation includes corroboration with the work of Pienaar (2015), RICS (2023), Baum et al. (2021), Cifuentes (2016), Crosby & Hordijk (2021; 2024), Lusht (1986), and Boyd (2003).

Descriptive analysis suggested openness to structured digital workflows, with several respondents identifying potential efficiency gains. Given the limited sample, inferential statistics were interpreted cautiously. The quantitative results are therefore treated as indicative patterns rather than a basis for generalisable conclusions, namely:

(1) Familiarity and perceived reliability encourage continued reliance on income capitalisation.

Both datasets indicated that longstanding professional practice and the demands of bank panel work contribute to a reluctance to adopt more complex models.

(2) Data limitations restrict the use of explicit DCF model.

Participants consistently noted difficulty accessing sufficiently granular and reliable inputs to support robust multi-period modelling.

(3) Digital tools are viewed as potentially helpful but not sufficient on their own.

Many participants expressed openness to structured workflows but emphasised that training, data quality, and model-specific understanding remain essential prerequisites for broader adoption.

(4) Behavioural influences play a meaningful role in model choice.

Comments highlighted cognitive load, habit, time pressure, and risk management considerations as important factors that influence valuers' decisions.

(5) The secured lending environment sways method preferences.

Participants linked method choice to reporting requirements, valuation norms, and the distinction between Market Value reporting and internal bank credit risk analysis.

These themes provide exploratory insight into the conditions that shape the use of explicit DCF modelling in South African secured lending valuations and set the foundation for the paper's subsequent discussion.

The importance of this study lies in the valuation process and its influence on key credit-risk parameters—PD through forward-looking cash-flow projections and reversions, and LGD through more conservative valuation estimates—as well as the effect on Risk-Weighted Assets (RWA). By comparing current market valuations with explicit DCF-based investment valuations, a more conservative and future-oriented assessment emerges.

Conclusion and Recommendations

Given the exploratory nature of this research and the modest sample size, the practical implications presented here should be interpreted as emergent insights rather than prescriptive industry-wide solutions. The recommendations below reflect patterns observed across interviews and survey responses (with corroborating secondary data), offering directional guidance on areas where valuers and lenders may benefit from incremental improvements rather than comprehensive systemic reform.

Digital tools have improved data accessibility and streamlined the valuation process, reducing calculation time and increasing accuracy (Naeem *et al.,* 2023). Both external independent valuers and internal valuers noted the ease and efficiency brought by digital tools, aligning with the literature's emphasis on the benefits of digital adoption (Baxter & Vandell, 2007). However, there is still a preference for traditional models like the income capitalisation model due to perceived reliability and fewer assumptions compared to the DCF model.

Participants consistently highlighted gaps in confidence and technical familiarity with explicit DCF modelling. Within the scope of this exploratory study, targeted and proportionate training—rather than broad, industry-wide programmes—appears to be one potential enabler of adoption. Training focused on understanding assumptions, reconciling DCF outputs with income-capitalisation inputs, and interpreting risk-related cash-flow indicators could support valuers who frequently operate in secured-lending contexts. This aligns with broader educational principles emphasised in property-focused professional development literature (Azasu & Gibler, 2016; Azazu & Simons, 2018), but the present findings suggest this at a modest, practice-oriented scale, not a sector-wide overhaul.

The study provides preliminary evidence that simplified and structured digital workflows may reduce perceived complexity and improve usability for explicit DCF models. Rather than recommending extensive technological investment at an industry level, the findings indicate that light-touch, workflow-supporting digital tools—when aligned with valuers' existing practices—may facilitate engagement with multi-period modelling. These observations suggest potential value, particularly where banks already possess data infrastructure, but further research is required before generalising across the wider valuation profession.

Investing in digital tools to facilitate easier access to data for the DCF model is crucial, along with providing valuers with the necessary resources to navigate and use data sets accurately. As participants highlighted challenges related to fragmented data, tools such as Real Capital Analytics could help address these gaps. Real Capital Analytics is a real-time, global database for commercial real estate transactions. Today, this belongs to the MSCI group. It tracks over $40 trillion worth of commercial property transactions and provides access to bespoke datasets for various countries, including South Africa. (MSCI, 2021).

Participants drew attention to uncertainties about how valuation outputs interact with banks' internal risk processes. Although the Basel framework does not dictate valuation model, clearer communication between lenders, valuers, and regulators may assist in aligning expectations. The study's findings do not support sweeping regulatory reform; instead, they encourage incremental clarification—for example, clearer guidance on how additional, non-Market Value analytical outputs (such as a DCF-based income trajectory) may be used internally by banks.

Several interviewees suggested that enhanced communication among valuers, bank credit teams, and professional bodies could help address misunderstandings around data requirements and model choice. Given the exploratory evidence base, this recommendation is best framed as a potential low-cost, collaborative practice rather than a formal industry directive. Peer-learning sessions or voluntary working groups may provide practical avenues for improved understanding without necessitating significant institutional change.

Establishing uniform standards and enhancing data reliability is crucial to facilitating digital integration. Stakeholders prioritise achieving greater precision and operational efficiency as key benefits of digitalisation efforts. (Evans *et al*., 2019).

While participants expressed challenges around inconsistent market data, the study's limited sample does not justify strong claims about national data infrastructure reform. Instead, the findings suggest that improving data organisation within existing institutions, or promoting the use of structured internal datasets, may assist valuers in engaging with DCF modelling. Broader data reforms remain outside the scope of the present evidence and may be considered in future research.

The study provides initial indications that a clearer demarcation between Market Value reporting and supplementary internal analytical outputs could reduce uncertainty for valuers. Case studies or guidance developed by professional bodies may help clarify acceptable uses of DCF-based outputs in secured-lending contexts. However, further empirical work would be needed to determine how legal acceptability evolves in practice.

The findings of this exploratory study identified several areas where deeper investigation would be valuable:

- stakeholder perspectives beyond valuers and bank modellers,
- longitudinal analysis of valuation practice assisted by digitalisation, and
- cross-jurisdictional comparisons of prudential approaches to property risk.

These avenues could help validate whether the preliminary insights observed here hold more broadly across the industry.

Overall, the practical implications emerging from this study indicate possible pathways through which valuers and lenders might address barriers to explicit DCF adoption, while recognising that substantial organisational or regulatory change lies beyond the scope of the present evidence base. The findings nonetheless provide a useful early foundation for subsequent, more comprehensive research into valuation practice modernisation and prudential risk analysis.

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