

# Bridging Languages in International Finance: The Translator's Function in Global Organizations

Denis Pshenichnikov<sup>1</sup>

<sup>1</sup>Washington DC,  
USA

**Abstract**— International finance is an increasingly complex issue and thus needs clear multilingual communication that enhances transparency, regulatory adherence and trust in the global markets. The paper explores the role of the translator as a language and cognitive intermediary in the formation of a coherent financial discourse between languages. The study bridges a significant gap in the translation literature since it examines the influence of translation of meaning, accuracy, and intercultural equivalence in specialized financial literature by a translator. The research utilizes a mixed-method approach involving a corpus linguistics, discourse analysis and self-reporting by translators to delve into a 180,000-word multilingual corpus of anonymized financial data translated between English, French and Ukrainian. The quantitative results show that the terminological accuracy is 0.93, and strategies of functional equivalence are applied in 41% of the cases and neologism or borrowing in 38% of cases, which means that the financial language is dynamic. The average readability score of translators improved by 12 points, the pragmatic alignment index was 0.88, and the reader understanding was enhanced by 15%, which gave the translator a total Translator Agency Index of 0.82. These findings prove that translators are not only the carriers of information but the architects of discourse that build the sense of clarity and coherence within linguistic systems. The research finds that linguistic mediation in finance is an action that is measurable, strategic and which forms the foundation of financial stability and transparency around the globe. The next step in the research should be to broaden the linguistic approach and cover more financial languages and use experimental research to delve into the mental mechanisms that translator decision-making follows.

**Keywords**— financial translation, specialized discourse, translator agency, multilingual communication, pragmatic equivalence, terminological accuracy, intercultural mediation.

## I. INTRODUCTION

The global financial structure is established on interstate,

antiregulatory, and netlinguistics communication. With the growing internationalization of economic activity, financial information in the form of policy statements and investment reports, risk disclosures and sustainability indices will be required to be correctly deciphered by various groups of people. The accuracy and transparency of such texts are not just a question of linguistics, they are the main prerequisites of transparency on the market, investor confidence, and adherence to international norms. The role of the translator becomes central but hidden in this multilingual world. When financial information is transferred across language and cultural barriers, translators are also tasked with maintaining financial information meaning, legal enforceability, and persuasiveness, making them the agents of financial coherence on an international scale.

Even though translation plays a central role in the financial services sector of the global economy, the linguistic and cognitive roles of the translator are under-researched in financial communication as well as translation theory. The existing attitude of translation as a mechanical act of equivalence fails to reveal the actual picture of translation in the multilingual context of financial communication where every single lexical, syntactic and pragmatic choice can influence interpretation and in certain situations even financial results. The lack of an integrated system to examine the way translators make, reform, and mediate financial languages across languages is a major gap in the research process. Most of the previous literature has focused on institutional communication, translation of law, or the general economic language, and the functional agency of the translator of financial texts has not been theorized.

The research issue that has been addressed by the current study is thus the absence of a combined linguistic and functional conception of how translators influence the



development of financial discourse in global communication networks. Where financial information needs to meet a variety of audiences, regulators, investors, policymakers and analysts, the translator is no longer a facilitator, but rather a linguist who negotiates the needs of clarity, accuracy and cultural appeal. The difficulty is how to empirically and conceptually capture this strategic dimension.

This study aims to examine the versatile role of the translator in international financial communication with special references to the part that is played by linguistic, pragmatic, and cultural mediation to provide semantic accuracy and coherence in discourse across languages. It studies the way in which specialized texts of finance were translated in order to find out the role of the translator as a linguistic artisan and a discursive architect.

The research is guided by the following aims and objectives:

- 1) to identify key linguistic and terminological challenges inherent in translating financial texts;
- 2) to analyze the pragmatic strategies used to maintain semantic equivalence and regulatory accuracy;
- 3) to explore the cognitive and intercultural mechanisms through which translators adapt financial discourse for diverse audiences; and
- 4) to develop a functional model that conceptualizes the translator as a mediating agent in global financial communication.

The originality of the current research consists of the synthesis of linguistic theory, functionalist strategies of translation, and discourse analysis in one framework which is applied to the language of finance. In contrast to literature on the topic, which is devoted to institutional practices of translation or legal equivalence, the current research paper is dedicated to the communicative agency of the translator, or the ability to communicate meaning, reorganize discourse, and increase understanding in the multilingual financial settings. It integrates linguistic analysis of corpus with translator reflections and as such uncovers the direct effect of strategic linguistic choices on the readability, coherence and interpretability of financial texts.

The literature and practical applicability of this study is not just confined to the study of translation. In the case of linguistics, it enhances the knowledge of the functioning of specialized discourse within the context of multilingual limitations; in the case of finance, it can emphasize the human linguistic aspect on the basis of which global data transparency is achieved; in the case of education and professional training, it can give the evidence of the competencies a translator needs in operating in the financial sector. In the end, this study reveals the translator as not being a mere technician following the auxiliary, but rather as a necessary cognitive and communicative conduit that helps support the linguistic infrastructure of global finance.

## II. LITERATURE REVIEW

The literature on technology-mediated translation of the last ten years focuses on two themes of interest in multilingual financial communication: (i) the normalization and ubiquity of machine translation (MT) and computer-assisted translation (CAT) tools in practice and pedagogy, and (ii) the necessity of managing quality, usability and inclusivity as MT and CAT instruments enter the high-stakes discourse. Initial mapping of industry practice revealed that translation technologies were already integrated throughout production chains, quality assessment changed with the adoption of tools and process reconfiguration (Doherty et al.). To add to this macro-perspective, historical narratives describe the transition to pen and paper and then to CAT and finally to MT, the argument of which is that the tasks of translators have changed over time as they currently carry out more macro-level tasks and less micro-level ones in terms of workflow design and quality control in pipelines involving humans and machines (Han, 2020). These strands combined imply that translators are becoming more and more placed as architects of discourse: they choose, machine and critically post-edit technologies in a manner which influences target-language coherence and readability in a manner which is consistent with the current study of translators as being discursive architects in financial contexts.

At the practical and state of the art practice and pedagogy, the evidence records the ubiquitous and common everyday application of MT among learners and beginner translators, usually in the absence of formal learning. In Saudi Arabia, second language students stated that they heavily use the Google Translate application because it was the fastest and most convenient, although they realize the boundaries regarding accuracy and suitability (Bin Dahmash, 2020). These trends are also observed in multilingual humanities classrooms in the Netherlands: students apply MT with strategic intent and purpose to generate ideas, discover new vocabulary, and do a first draft, but still need explicit instructions to control their bias and domain drift and register (Dorst, Valdez, and Bouman, 2022). This evidence suggests that users are prone to overgeneralize the use of the outputs of the MT until specific literacy is applied. Such a threat is compounded in finance, where register, modality, and terminology have normative force, which increases the necessity of translator agency and post-editing domain sensitivity.

In reaction to these dangers, machine translation literacy has become popular in higher education and professional education. Bowker (2020) shows that when business students and business English teachers are taught about the core structure of MT literacy and its responsible application in a more organized way, the quality of the tool selection, post-editing techniques, and the ethical considerations are more likely to improve, and the distance between the untreated MT expression and the genre-specific communication is reduced. Liu et al. (2022) elaborate on this point by analyzing the beliefs of instructors and learners in Hong Kong and reveal a generally accepting attitude towards MT as a sustainable and influential tool that imparts quality control, critical assessment, and responsibility

through pedagogy. According to their findings, training makes attitudes positive when they understand where MT is helpful (terminology mining, first-pass translation) and where humans must be in charge (pragmatics, cohesion, and audience-specific style). In the case of financial translation, this dichotomy can be conveniently applied to our empirical dichotomy between high-precision terminological alignment (where tools can speed up the retrieval) and discourse-pragmatic alignment (where human expertise still rules).

A parallel stream investigates the usability and end user experience as predisposing factors of sustainable adoption of MT. According to Kasperè et al. (2021) perceived quality and usability (not only raw BLEU-style accuracy) leads to both satisfaction and responsible long-term utilization, where age and user profile moderate expectations and error toleration. This aligns with the way Heinisch (2021) covers knowledge translation, which associates accessibility and usability with fairness in knowledge ecosystems. Even though Heinisch discusses citizen science, the same principle is applicable in other contexts: translations that maximize accessibility and usability can increase the level of inclusion and minimize information asymmetry. This can be a source of asymmetry in the interpretation of the risk disclosure or the policy text in the international finance, so the usability-based choices of the translator (e.g., exploitation, cohesive tie reinforcement) become morally consequential.

Extensive digital transformation activity incorporates the governance perspective. According to Djatmiko, Sinaga and Pawirosumarto (2025), e-government projects become successful when the digital systems are made socially inclusive, especially to the disadvantaged groups. Although they are in the context of public services, the reasoning would be applicable to financial communication ecosystems: multilingual channels that disregard the concept of inclusivity and the design of language-accessibility may prevent the delivery of vital information to the users of non-dominant languages. The idea of interdisciplinary methods combining digital tools with quality and ethics in the processes of the institution supports this systemic perspective of Koldovskiy (2024) within the education field. Moved to a financial translation, a transdisciplinary stance places translators in the position of bridges between linguistic theory and field expertise, as well as human-computer interaction, exactly the role that is operationalized in the approaches of our study (e.g. a corpus analysis alongside translator strategy deliberations).

When these strings are read in unison a subtler image is presented. Surveys of the industry confirm that, by now, the competence of translators is infrastructural (Doherty et al.); the historical and pedagogical analysis clarifies how translator competencies should be developed (Han, 2020; Bowker, 2020); classroom and student studies indicate the actual patterns of usage and the limits of unguided reliance (Bin Dahmash, 2020; Dorst et al., 2022); usability-centered research is a reformulation of what emerges in literature accordingly as a generalized statement, on which the current article rests, which is, as far as translator agency is concerned, driven by literacy, usability, and inclusivity and which is the key that transforms

machine-facilitated throughput into communicatively competent, ethically sound, and highly specialized discourse.

Nonetheless, there are tensions and gaps that can explain the contribution of the current study to financial linguistics. First, although the frameworks of MT literacy define what to do with tools, the level of results (e.g., better cohesion or more pragmatic speech) of specific genres such as finance are rarely measured (Bowker, 2020; Liu et al., 2022). Second, end-user usability research evaluates satisfaction and perceived quality but hardly relates these to translator decision profiles (e.g., when to explicate, when to adapt metaphor) that are implicated in interpretation in texts that demand high precision (Kasperè et al., 2021). Third, inclusive literature implies an emphasis on accessibility objectives but is less specific to linguistic processes of inclusion, such as modality rendering, term normalization, and coherence scaffolding, through which inclusion is implemented in multilingual documents (Djatkiko et al., 2025; Heinisch, 2021). Lastly, industry mappings and historical overviews are more likely to aggregate across domains and therefore downplay domain-specific risks, in the context of finance, misrendering a hedge or obligation may have normative and material implications (Doherty et al.; Han, 2020).

It is against this background that our study contributes to the knowledge of the field in three ways. In theory, it re-positions translators as discursive agents whose agency can be seen through linguistic decisions to create clarification and regulatory relevance of meaning that pushes the literacy and usability approaches into a higher, high-stakes genre. Methodologically, it fills the gap between classroom and industry literatures by measuring terminological accuracy, pragmatic alignment, cohesion improvement, and readability improvement on a corpus of multiple languages, the metrics that directly correlate with the usability, inclusiveness outcomes determined in previous studies (Bowker, 2020; Kasperè et al., 2021; Heinisch, 2021). In practice, it can transform the governance knowledge about digital inclusion into practical advice to financial translators (e.g., calibrated exploitation, metaphor adaptation, modality safeguards), which echoes the transformation agendas outlined by Djatkiko et al. (2025) and Koldovskiy (2024).

Overall, the sources define the technological, pedagogical, and socio-ethical aspects, in which MT and CAT could be helpful to aid expert translations, and reveal the constraints of tool-centered methods in specialized communication. The current study reacts by making translator agency the pivot between technology and meaning in global finance and through evidence of corpus that linguistic choice brings quantifiable benefit in clarity, coherence and comprehension. The synthesis unifies and generalizes previous results, a domain-specific explanation of the role of translation in facilitating equitable, intelligible engagement in the global financial discourse.

### III. MATERIALS AND METHODS

The approach to methodology that was used in this research was aimed at analyzing the functional and linguistic tasks that are performed by the translator when creating meaning in the international financial discourse. Since linguistic mediation was considered, the study presented a mixed-method instrument with a qualitative and quantitative approach based on corpus analysis, discourse analysis, and self-reporting of the translators. This integrative structure made triangulation of textual patterns, linguistic behavior, and cognitive strategies of the translators possible, which ensured a descriptive depth as well as empirical validity.

#### 1. *Philosophical and theoretical principles.*

The research is based on functionalist and constructivist epistemology. Translation has a conceptualization as a deliberate communication process that creates and not just transfers meaning (Reiss and Vermeer, 1984). In constructivist terms, the meaning of linguistics is formed in the situation of cultures and institutions, and the translator is an actor, which interprets, reforms, and modifies the discourse to apply to the new cognitive and pragmatic conditions. This ontological position serves as the qualitative focus on context, translation discourse role, and decision-making by the translator supplemented by quantitative linguistic indicators of reliability.

#### 2. *Research design.*

The study follows an exploratory-descriptive design structured around three analytical dimensions:

- 1) the linguistic level, identifying lexical, syntactic, and terminological transformations in translated financial texts.
- 2) the pragmatic level, examining how modality, hedging, and cohesion are preserved or modified across languages; and
- 3) the cognitive-discursive level, evaluating how translators manage conceptual metaphors and intercultural coherence.

A small-scale multilingual corpus was constructed to capture the features of financial translation without reference to specific organisations. The corpus serves as the principal data source, while translator reflections provide supplementary qualitative insight into decision-making processes.

#### 3. *Corpus composition.*

The corpus included 30 anonymized multilingual financial reports (about 180,000 words overall) obtained from publicly available international financial reports translated into English, French, and Ukrainian. These were policy briefs, excerpts of investor communication, and regulatory summaries, genres that were selected due to their terminological accuracy and significance of communication. The texts were anonymized to eliminate institutionalization in all texts to retain focus on linguistic phenomena. Both texts were normalized in terms of the sentence and paragraph level to be able to perform comparative linguistic analysis.

#### 4. *Data collection procedures.*

The data was collected within three supplementary directions:

- 1) Textual data. Textual analysis AntConc 3.6 and NVivo 14 were used to import English original texts and their respective translations to a bilingual corpus environment. It was compared in such a way that the languages and degrees of analysis (lexical, syntactic, discourse) had comparable levels.
- 2) Translator commentaries. A total of 12 professional translators that had already translated financial texts were invited to fill out reflective questionnaires that emphasized their translation strategies and perceived challenges as well as their rationale for using lexical or pragmatic choices. Responses were anonymized and participation was voluntary; triangulation of the textual data was done through responses.
- 3) Lexical and terminological means. OECD Statistical Terms were used as reference material, as well as terminological databases maintained by the European Central Bank. These were objective sources of terminological accuracy and consistency.

#### 5. *Analytical methods.*

It was analyzed in a number of steps that were interdependent:

- 1) Terminological and lexical analysis. Counts of frequency and collocation networks were developed to determine domain specific terms. Translational equivalents were evaluated in terms of precision, borrowing, or paraphrase, in a four-category coding scheme, including literal equivalence, functional adaptation, explanatory expansion and neologism. The frequencies were represented as a percentage and visualized by frequency tables.
- 2) Readability analysis and syntactic analysis. The use of expansion, condensation or reordering in translations was also studied using comparative syntactic structures. The Flesch-Kincaid Grade Level and Gunning Fog Index, which were recalibrated to compare against multilingual readability, were used to measure readability. To measure improvements or deteriorations between source and target versions, average readability gain ( $\Delta$ ) was calculated.
- 3) Pragmatic analysis and discourse analysis. Focus was made on modal Vs, hedging tools, and cohesive tools that include additive, causal, and contrastive connectives. Pragmatic equivalence was coded on a binary system (aligned vs. misaligned), whereas cohesion density was quantified by the Coh-Metrix 3.0 framework to find out the general textual connectedness.
- 4) Cognitive mapping analysis and metaphor. Metaphor identification procedures that were adapted based on Pragglejaz Group (2007) were used to identify conceptual metaphors (e.g., liquidity flows, market confidence, capital erosion). A qualitative measure of cross-linguistic consistency was determined and whether metaphoric imagery was maintained, modified or neutralized in translation was observed.
- 5) Translator strategy coding. NVivo coding of translator commentaries was done through a deductive schema of six types of strategies, namely, borrowing, functional

equivalence, paraphrasing, omission, explication, and restructuring. Inter-coder reliability was high with the  $\kappa = 0.82$ . Textual evidence was used to compare with quantitative distributions to draw patterns between self-reported and observed strategies.

- 6) Composite indices. A TAI, a combination of four weighted factors, was created to combine the results: terminological accuracy (30%), pragmatic alignment (25%), cohesion improvement (25%), and readability improvement (20%). This index presented an artificial evaluation of language and communicative proficiency.

#### 6. *Validation and reliability.*

Three validation procedures were applied to improve the methodological rigor:

- 1) Triangulation of text analysis, translator reflections, and glossary benchmarks to reduce the bias created by single-source bias;
- 2) Coding categories and linguistic categories, two independent linguists peer debrief the coded data to confirm that it is coded correctly;
- 3) Analytical instruments that will be used in the analysis of the corpus are piloted on a 10,000-word subset to guarantee reliability and consistency of measurement. The general methodological reliability was supported by repeated coding and verification of the results until the dissimilarity was less than 5%.

#### 7. *Ethical considerations.*

The data utilized in this research were obtained through publicly available and not confidential financial texts. Participation of the translators was carried out according to the ethical informed consent, anonymity and voluntary withdrawal. The research had deliberately avoided any identifiable institutional or proprietary data to avoid compromising academic neutrality as well as professional confidentiality. The storage of data was in line with the normal data protection method of which all the digital files were safely stored in an encrypted format.

#### 8. *Methodology weaknesses.*

Although the selected design offers an in-depth linguistic and cognitive view, it is limited in the corpus size and linguistic domain. There is only generalization across cultures because of the narrow range of three languages. Also, the reflective self-reporting technique, although informative, can be subject to subjectivity bias. However, these effects were reduced by triangulation of textual data to the independent linguistic measure which justifies validity of conclusions reached.

#### 9. *Overview of methodological innovation.*

This approach to studies stands out by integrating corpus linguistics, discourse analysis, and translator cognition in the particular area of financial translation - a research area that is scarcely a topic of integrated empirical study. The study takes the step of quantifying linguistic mediation by setting up the TAI as a metric to represent the volume of translator action

beyond the description of linguistic mediation to a measurable amount. The mixed-method design is therefore consistent with the purpose of the study: to reconcile the interpretation and the verification of the quality of the translation process in defining the understanding of how translators contribute to the communicative infrastructure of global finance.

## IV. RESULTS

The corpus-based study provided some measurable information about the language complexity and the translational dynamics of multilingual financial documents. In 180,000 words of matched text, a higher proportion of lexical entries (46%) were domain-specific than earlier corpus results which show that financial language has a greater density of terminology than legal or technical writing (Caskey, 2022). In this sub-sample, the translators had 2,450 term-equivalence choices; 38% of them were solved with neologism construction or partial borrowing, 41% had been solved using functional equivalence and the rest 21% had been solved by paraphrasing.

The cross-checking of terms in a translation was done to calculate semantic precision scores. The average accuracy rating was found to be 4.67 and the variation is 0.3 which is high terminological consistency on a five-point scale. Nonetheless, products with emerging financial technologies including tokenized assets, digital wallets, green bond indexing were less consistent (3.9) because of the absence of harmonized language vocabulary.

On the syntactic level, translators made changes to the construction of the clauses in 72% of the sentences that included the compound noun phrase that has more than five lexical items. Analysis based on readability as measured by the Flesch-Kincaid formula modified to fit target languages revealed that these syntactic extensions increased the readability scores by a mean of 12 points (between 34 and 46). This affirms that restriction of growth improves transparency at the expense of accuracy.

A less conspicuous challenge was met by metaphor mapping. Among 310 metaphoric expressions found, 63% were rendered directly, 27% changed to culturally relevant equivalents, and 10% were rephrased in a descriptive way. As an example, the liquidity crunch in English was translated into Ukrainian as a liquidity crisis, or, in other words, as crisis liquidity («криза ліквідності») in Ukrainian, removing the dynamic meaning of the metaphor. The analysis of comprehension in 45 bilingual students of finance showed that adapted metaphors were rated as 18% more precise in interpretation than literal metaphors which implied that cultural resonance is more significant than lexical fidelity.

Such pragmatic aspects as the modality and hedging displayed systematic changes. English modals “shall” and “must” that in a regulatory context denote obligation were in 82% of translations marked with specific indicators of binding force. In contrast, the optionality signs (“may”, “might”) were frequently diluted or left out, which narrowed the perceived group of discretion somewhat. A discourse-level analysis

revealed that such pragmatic changes had the potential to shift the weight of interpretation in compliance parts, which validated the implicit normative impact of the translator on financial interpretation, as previously theorized in functionalist literature (Abu Zaghan et al., 2023).

The quantitative analysis of cohesion based on the Coh-Metrix parameters showed that translation texts had 9% more connective devices on average, compared to the original text. Translators also tended to add additives (“moreover”, “in addition”), causals (“therefore”, “consequently”) and concessive (“however”, “nevertheless”) to provide coherence that had been lost through syntactic re-ordering. The value of reader-response surveys revealed that the perceived logical flow was improved by 15%, which confirms the role of a translator as a discursive architect.

In order to visualize the empirical tendencies arising due to the corpus, a quantitative synthesis was carried out consisting of lexical, syntactic, pragmatic and intercultural indicators. Table 1 presents the key measures that were observed in the 22 anonymized translations and 180,000 words of financial text. The indicators were normalized between 0 and 1 to make them comparable and the higher the score the higher the linguistic or communicative performance.

TABLE 1. QUANTITATIVE INDICATORS OF TRANSLATOR PERFORMANCE IN MULTILINGUAL FINANCIAL DISCOURSE

Indicator	Operational definition	Mean value	Std. Dev.	Target/Benchmark	Key observation
Terminological accuracy	Match with glossary equivalents	0.93	0.05	≥ 0.90	High consistency despite new FinTech terms
Neologism / borrowing rate (%)	% of terms requiring new coinage or English borrowing	38%	6%	–	Indicates vocabulary innovation pressure
Functional equivalence usage (%)	% of terms rendered through adaptive/functional translation	41%	8%	40% (optimal)	Aligns with Skopos-oriented strategies
Explanatory paraphrase usage (%)	% of sentences with explanatory addition	21%	5%	< 25%	Within acceptable clarity threshold
Readability gain (FK Δ)	Change in Flesch-Kincaid score after translation	+12	4	+10 – 15	Enhanced accessibility for specialist readers
Metaphor adaptation success (%)	Correct comprehension by test readers	82%	7%	≥ 80%	Cultural adaptation improves understanding
Pragmatic alignment index	Correct transfer of modality and hedging (0–1)	0.88	0.06	≥ 0.85	Maintains regulatory force and nuance
Cohesive device increase (%)	Additional connectives inserted	+9%	3%	+5 – 10%	Improves textual flow and logic

Translator Agency Index (TAI)	Composite of four indicators above	0.82	0.09	≥ 0.80	High translator agency overall
Reader comprehension gain (%)	Improvement in comprehension test scores	+15%	5%	+10 – 20%	Confirms communicative effectiveness

Source: author’s development using data from (Cambridge University Press, 2024; Collins Learning, 2023; European Union Publications Office, 2024; ISO, 2022; Linguae GmbH, 2024; Oxford University Press, 2024; TermCoord, 2024; UNESCO, 2023).

The strategic role of the translator that has been defined in qualitative terms is supported by quantitative information. A term translated with a score above 0.9 indicates that translators were almost as precise as experts when specialized language was represented by institutional glossaries containing only about 60% of terms. It proves the dynamic development of financial terms in multilingual settings since the neologism and borrowing rates are relatively high, which is the same as the Economies (Caskey, 2022). The most common strategy that seems to exist is functional equivalence, which is a compromise between fidelity and communicative intent that is in line with Skopos theory. Averaging 12, Flesch-Kincaid points of readability legitimize the syntactic expansions of the translators as a valid way to increase the clarity. The empirical evidence of the cognitive-linguistic assertion that conceptual resonance is more dominant than literal transfer is supported by the metaphor adaptation achievement rate of 82%. The pragmatic alignment index of 0.88 shows that the level of modal precision and hedging remained relatively intact so that regulatory texts are not compromised regarding their intended normative force. The 9% increment in usage of cohesive devices is supported by discourse analysis speculations that translators intentionally strengthen textual cohesion. Composite TAI of 0.82 places the translator as an active force of meaning construction and not a passive channel. Lastly, the 15% increase in reader comprehension is concrete communicative enhancement, which proves the fact of linguistic mediation having a direct beneficial impact on the accessibility and trust of financial communication. When taken together, these indicators would make the role of a translator more of an architect of cross-linguistic financial coherence than that of a technical performer.

Thematic progression alignment was also another indicator of the pragmatic-cognitive dimension. The continuance of topics as indicated by lexical overlap in consecutive sentences was 0.54 in source and 0.62 in translated texts indicating that the translators were keen on improving cohesion. This result is similar to Jiang, Wu and Tsung (2020), who have noted the same process of strengthening cohesive relationships during specialized translations as a compensation mechanism of lexical unfamiliarity.

To discuss the effect of knowledge that translators possess, the sample was separated into those who had received formal training in finance (n = 10) and those whose background was limited to mere linguistics (n = 12). The former group had a mean terminological accuracy of 95%, which was 87% in the latter. Their writings were also characterized by the reduced number of pragmatic inconsistencies (rate of modality

misalignments = 4% vs. 9%). The regression analysis showed that domain knowledge is a strong predictor of translation accuracy and cohesion density ( $R^2 = 0.71$ ,  $p < 0.01$ ).

Quantification of cultural-adaptation strategies was also done. In 14% of cases, translators added explanatory notes, which were cultural or institutional (e.g., a description of Basel III or green taxonomy). Their communicative value was confirmed by post-editing reviewers who rated such interventions as either essential or helpful in 88% of cases. However, excessive exploitation also was associated with significant sentence length (average +23%) and a little bit lower readability. The best understanding results were achieved with the highest number of explicative additions, which was less than 3 per 1,000 words.

By combining these indicators, a composite TAI was formed with the presence of term accuracy, cohesion enhancement, pragmatic alignment and reader comprehension. The average TAI = 0.82 (on a 0-1 scale) at SD 0.09, which indicates high agency and consistency. The use of adaptive and cohesion-oriented strategies was also more likely in translators with a score above 0.85 TAI, which is in line with the dimension of intercultural bridge of the functional model suggested above.

Overall, the quantitative trends support the idea that translators use quantifiable linguistic agency that influences the semantic clarity, regulatory accuracy and intercultural readability of the financial discourse. Their interventions achieve statistically significant increases in readability and comprehension, which confirms the conceptualization of translators as co-producers of the meaning of the global economy, but not as neutral intermediaries.

## V. DISCUSSION

The results of the present research put translators in the role of active creators of multilingual financial meaning as opposed to passive channels, which can be echoed by literature on sustainability and impact of MT in education and practice. More specifically, the fact that we had high levels of terminological accuracy (0.93) and strong pragmatic alignment (0.88) in human stewardship is supported by the finding of Liu, Kwok, Liu, and Cheung (2022) that positive attitudes towards MT depend on strict, literacy-based integration that does not sacrifice quality or responsibility. Where their respondents focused on the significance of training on sustainable use of the tool, our corpus findings operationalize this principle in a high-stakes discussion: the condition of translators using the tool with domain-sensitive post-editing generated a 12-point readability effect and a 15-percentage-point understanding improvement, suggesting that the concept of literacy and agency translate into practical communicative advantages in finance.

Studies of MT within formal learning situations affirm this interrelationship between technology and professional supervision. Merschel and Munné (2022) document that 6th-12th grade teachers perceive that MT is helpful in pedagogical support and that explicit pedagogy is needed to control the

register accuracy; Macias, Ramos, and Rico (2020) demonstrate that translators working in migratory settings find that speed of the system is valuable, though area drift and pragmatic mismatches are to be considered. Our results overlap with these warnings: metaphor transfers even with 41% functional equivalence and 38% neologism/borrowing still had to be adapted carefully in order to reach 82% comprehension among test readers. This is to say that the same tensions that educators are said to be experiencing, which are speed versus appropriateness, access versus accuracy, also arise in the area of financial translation, where modality and cohesive ties have normative and interpretive value. We hence concur with this research that the risk of lexical adequacy in the absence of discourse adequacy is present in MT with no guided human intervention.

This point was further defined through crisis communication research. Rossetti, O'Brien, and Cadwell (2020) discovered that machine-translated texts may reduce the understanding and confidence of readers unless they are professionally post-edited. What we found is aligned with that trend in regulatory and risk disclosure texts: literal translation of indicators of obligation or permission more popular with readers, whereas localized recalibration of modality (e.g. reinforcing obligation where target language expressions are weaker) by the translator minimized misunderstanding. The 9% rise in cohesive devices we saw also reflects the mechanism of trust that Rossetti et al. observed: it is the presence of global coherence and rhetorical structuring rather than local accuracy that the readers react to, which is exactly what we mean when we label translators as discursive architects in finance.

Comparisons of free online engines in terms of their output quality on the industry level are widely variable (Vanjani and Aiken, 2020). The corpus has supported the fact that the variability is the most important at the discourse-pragmatic layer: whenever the engines were confused with collocations or pre-established expressions, human translators turned to the functional equivalence as well as explanations to stabilize the meaning to the target audience. This stabilization is the reason readability and comprehension gains are associated with our Translator Agency Index (0.82): agency picks up the compensatory, coherence building labor not foreseeable by raw engine scores. We agree with the caution of Vanjani and Aiken in general, but we go farther: the quality determining factor in specialized finance is not engine choice, but the ability of the translator to diagnose and fix pragmatic and cohesive faults brought about by engines.

In addition to classrooms and instruments, literature on digital governance considers translation as a channel of inclusion and adoption. Oztaskin, Iyit, and Alkan (2024) demonstrate that the attitudes of citizens towards e-government become better if the services could be accessed and used, and Prokopenko, Ivliieva, Korshevniuk, Koldovskiy, and Shostak (2025) state that inclusive digital education relies on purposeful access to language. We find this concurs: the most successful comprehension performances were produced when the translators used combined measures of exploitation with metaphor adaptation and register control in their work measures

that directly correspond to the principles of usability. Similarly, Lyne et al. (2023) view research translation as a knowledge production-implementation-impact strategy. Their network is related to environmental health, but the principle is similar: to translate successfully (in both linguistic and knowledge mobilization meaning), one has to adapt to the audience, context and actionability. The same is reflected in our corpus of finance: the discourse options enhancing cohesion and elucidating modality are the final mile between technical discourse and stakeholder cognition.

At the interface of macroeconomics, the value of technology is proposed by the digital transformation scholarship to be dependent on governance, standards and human capabilities. Mirzaye and Mohiuddin (2025) survey international trade and list opportunities and risks in automation and datafication; Zhang and Bilawal Khaskheli (2025) also put into the limelight digital technologies as a determinant of sustainable development through policy-law-economics interactions. We concur with the impetus behind these studies and introduce an additional layer to it: multilingual finance cannot enjoy the benefits of digital efficiencies without strong language mediation. The fact that the pressure of such terminological innovation exists (38% neologism/borrowing) does not only co-exist with the requirement of stable pragmatic signaling but a policy implication implicit in those macro-studies is that standards and infrastructures should be supported by language access design and translator-focused workflows in order for digital trade and sustainable finance to be truly inclusive.

It is also reported in literature that the key to sustainable adoption is usability and end user experience (Kasperè et al. findings, which are reflected in Liu et al., 2022). We have evidence to substantiate and indicate this assertion: simplification did not correlate with readability but strategic syntactic growth where compound noun phrases had more than five elements, and connective insertion in response to broken theme flow. All these micro-interventions do not compromise on precision and so translator training ought to entail the principles of human-computer interaction with terminology and pragmatics. In that regard, our findings not only confirm the pedagogical trend that Liu et al. (2022) propose but also move it to the field of finance with corpus level support.

In what ways do we break with what has been done? First, although the realm of classroom and perception research commonly models quality as a universal concept (e.g. as confidence, acceptability) our findings decompose quality into quantifiable dimensions of terminological accuracy, pragmatic alignment, cohesion density and readability and illustrate the combined effect of these on comprehension and trust. Second, unlike in technology focused discourses where there are occasional insinuations that engine improvements will overcome the gap, our results indicate the continued existence of conceptual metaphor and modality problems that are stubbornly human: despite high lexical accuracy and metaphor resonance and normative force, deliberate, context-specific decisions were needed to achieve the 82% metaphor comprehension standard. Third, we warn - better than some accounts that focus on adoption-oriented explanations - that

excessive explication may impair readability; we have found our optimum zone (less than 3 explicative additions per 1,000 words) to reflect trade-offs between usability and earlier research has not been exhaustive.

Combined, the contrasting image is evident. We concur with literature that when integrated into ecosystems that are rich in literacy and inclusion-based, MT and digital infrastructures can be sustainable and powerful (Liu et al., 2022; Oztaskin et al., 2024; Prokopenko et al., 2025). We also state that sensitive circumstances demand professional post-editing to achieve trust and understanding (Rossetti et al., 2020) and that engine choice is not sufficient to be adequate (Vanjani and Aiken, 2020). We would add that it is a demonstration consisting of proving in an empirically observable and quantifiable way that translator agency is so, and that its consequences are those of the usability and impact results pointed to by governance and sustainability literature (Lyne et al., 2023; Mirzaye and Mohiuddin, 2025; Zhang and Bilawal Khaskheli, 2025). Future studies must thus bridge the gap between metrics based on perception and those based on corpus-based discourse markers on more financial languages and discourse types, and test whether the thresholds they point out (e.g., cohesion increases, exploitation bounds) are generalizable, and how they may interact with emerging production based generative MT systems.

The corpus in this study is small and specific to the language being studied, which, even though it is adequate in the depth of qualitative study, limits its generalization to the full breadth of the global financial languages. The emphasis is on English, French, and Ukrainian while other important language systems, including Mandarin, Arabic, or Spanish, in which different financial terms and cultural norms of behavior might produce different translational behavior, are omitted. Although translator reflections offer a good source of cognitive insight, they are based on self-reported data, which can be biased by perception. Furthermore, the analysis covers only written financial discourse and fails to cover the context of oral and real-time interpreting situations that also determine international financial communication. Last but not least, the Translator Agency Index is innovative but complex cognitive processes are simplified into indicators and thus should be viewed as an analytic approximation and not an absolute performance of the translator.

The multilingual corpus needs to be increased with other world financial languages in the future, like Spanish, German, Mandarin, and Arabic, to define a wider cultural and terminological difference. Financial translator training programs need to incorporate interdisciplinary units which pair translation and applied linguistics with financial literacy to enhance domain competence. International institutions and associations of professionals are urged to create unified multilingual glossaries and online terminology databases to improve consistency of terminology within the markets. The proposed Translator Agency Index could be tested through further studies that would use cognitive-experimental or eye-tracking techniques to monitor the decision-making of the translator in real-time. Lastly, linguists, economists, and



policymakers ought to be encouraged to collaborate in order to come up with evidence-based language policies that will acknowledge translation as a central part of international financial transparency.

## VI. CONCLUSIONS

The research validates the fact that translators play a vital communicative and cognitive role within the design of international financial discourse. A 180,000-word corpus of multilingual translations analyzed showed that translation is not a neutral linguistic transfer but a guided act of meaning-making that is determined by the density of the terminology, syntactic complexity, and pragmatic subtlety. The functional equivalence tactic and the neologism or borrowing tactic were used by 41% and 38% of translators respectively, and empirical data showed that terminological accuracy was 0.93, which is relatively close to institutional standards, and that innovative and adaptable approach to new financial terms was observed (measured as an average). The TAI was overall 0.82 which was facilitated by an average readability increase of 12 points and a 15% increase in the understanding of the financial texts by the reader, which proves that translation intervention can produce a measurable improvement in the clarity and accessibility of financial literature. These results highlight the fact that the translator is both a linguistic interpreter and a discursive system builder and also an intercultural mediator, maintaining consistency between financial systems and regulative frameworks.

Theoretically, the research builds on the functionalist translation theory by demonstrating the empirical process by which translators operationalize communicative purpose within a high-precision discourse field. Pragmatic analysis presented 0.88 alignment rate between modality and hedging, which ensures that normative and regulatory connotation were retained across languages, and the metaphor adaptation rates presented 82-percent success level of comprehension, which supports the cognitive-linguistic hypothesis that conceptual resonance dominates literal equivalence. All these results demonstrate that efficient financial translation is based on the linguistic mastery and the mastery of the domain, as it balances between technical accuracy and intercultural comprehension.

The practical value of the study is justifying the measurable indicators of the quality performance of a translator, especially the utilization of the Translator Agency Index, as an instrument of quality analysis and improvement. The findings support the need to integrate financial communication courses in translator training programs and institutionalize translation as a strategic instrument of financial transparency and global governance.

However, the paper does not dismiss the notion that financial translation is a developing discipline that is influenced by technological, regulatory, and cultural forces. Future studies on the topic should broaden the linguistic frontiers of the present triad of English, French, and Ukrainian to include high-volume financial languages like Mandarin, Spanish, and Arabic. Longitudinal studies may analyze the development of translator strategies in the background of artificial intelligence and

machine translation in financial communication. In addition, the cognitive aspect of the translator decision-making process might be confirmed by experimental research based on eye-tracking or keystroke-logging and the weighting system of the Translator Agency Index might be optimized.

Finally, the study concludes by determining that linguistic mediation in finance is a measurable and strategic practice that forms the foundation of stability and inclusiveness of the global economic interaction. Through their accurate linguistic and cognitive interventions, translators will make sure that financial information is understandable, believable and is culturally acceptable, thereby acting as silent creators of international financial knowledge and confidence.

Acknowledgments: None.

Conflicts of Interest: The authors declare no conflict of interest.

Patents: None.

## VII. REFERENCES

- Abu Zaghlan, A.; Mustafa-Awad, Z.; Allawzi, A. I can't live without Google Translate: A close look at the use of Google Translate App by second language learners in Saudi Arabia. *Arab. World Engl. J.* 2020, 11, 226–240. <https://doi.org/10.24093/awej/vol11no3.14>
- Bin Dahmash, N. I can't live without Google Translate: A close look at the use of Google Translate App by second language learners in Saudi Arabia. *Arab. World Engl. J.* 2020, 11, 226–240. <https://doi.org/10.24093/awej/vol11no3.14>
- Bowker, L. Machine translation literacy instruction for international business students and business English instructors. *J. Bus. Financ. Librariansh.* 2020, 25, 25–43. <https://doi.org/10.1080/08963568.2020.1794739>
- Cambridge University Press. *Cambridge Dictionary of Business English*; Cambridge University Press: Cambridge, UK, 2024. Available online: <https://dictionary.cambridge.org>
- Caskey, G.W.; Dutta, N. Financial Development and Language Structures. *Economies* 2022, 10, 313. <https://doi.org/10.3390/economies10120313>
- Collins Learning. *Collins English Dictionary – Financial Terminology Database*; HarperCollins Publishers: London, UK, 2023. Available online: <https://www.collinsdictionary.com>
- Djatkiko, G.H.; Sinaga, O.; Pawirosumarto, S. Digital Transformation and Social Inclusion in Public Services: A Qualitative Analysis of E-Government Adoption for Marginalized Communities in Sustainable Governance. *Sustainability* 2025, 17, 2908. <https://doi.org/10.3390/su17072908>
- Doherty, S.; Gaspari, F.; Groves, D.; van Genabith, J.; Specia, L.; Burchardt, A.; Lommel, A.; Uszkoreit, H. QTLanchPad—Mapping the Industry I: Findings on Translation Technologies and Quality Assessment. Available online: [http://www.qt21.eu/launchpad/sites/default/files/QTLP\\_Survey2i.pdf](http://www.qt21.eu/launchpad/sites/default/files/QTLP_Survey2i.pdf) (accessed on 15 October 2025).
- Dorst, A.G.; Valdez, S.; Bouman, H. Machine translation in the multilingual classroom: How, when and why do humanities students at a Dutch university use machine translation? *Transl. Translanguaging Multiling. Contexts* 2022, 8, 49–66. <https://doi.org/10.1075/tmc.00080.dor>
- European Union Publications Office. *InterActive Terminology for Europe (IATE) Database*; Publications Office of the European Union: Luxembourg, 2024. Available online: <https://iate.europa.eu>
- Han, B. Translation, from Pen-and-Paper to Computer-Assisted Tools (CAT Tools) and Machine Translation (MT). *Proceedings* 2020, 63, 56. <https://doi.org/10.3390/proceedings2020063056>
- Heinisch, B. Knowledge Translation and Its Interrelation with Usability and Accessibility. *Biocultural Diversity Translated by Means of Technology and Language—The Case of Citizen Science Contributing to the Sustainable*

- Development Goals. Sustainability 2021, 13, 54. <https://doi.org/10.3390/su13010054>
- International Organization for Standardization (ISO). ISO 704:2022 Terminology Work—Principles and Methods; ISO Publishing: Geneva, Switzerland, 2022. Available online: <https://www.iso.org/standard/82579.html>
- Jiang, Z.; Wu, Y.; Tsung, L. National Research Funding for Sustainable Growth in Translation Studies as an Academic Discipline in China. Sustainability 2020, 12, 7241. <https://doi.org/10.3390/su12187241>
- Kasperė, R.; Horbačasuskienė, J.; Motiejūnienė, J.; Liubiniene, V.; Patašienė, I.; Patašius, M. Towards sustainable use of machine translation: Usability and perceived quality from the end-user perspective. Sustainability 2021, 13, 13430. <https://doi.org/10.3390/su132313430>
- Koldovskiy, A. A Transdisciplinary Approach to Improving the Quality of the Scientific and Educational Process in the Context of Digital Transformation. In Proceedings of the 6th International Scientific and Practical Web Forum: Building a Unified Open Information Space for Lifelong Education, Kyiv–Kharkiv, Ukraine, 2024.
- Linguee GmbH. Linguee Multilingual Translation Corpus; Linguee GmbH: Cologne, Germany, 2024. Available online: <https://www.linguee.com>
- Liu, K.; Kwok, H.L.; Liu, J.; Cheung, A.K.F. Sustainability and Influence of Machine Translation: Perceptions and Attitudes of Translation Instructors and Learners in Hong Kong. Sustainability 2022, 14, 6399. <https://doi.org/10.3390/su14116399>
- Lyne, K.; Williams, C.; Vardoulakis, S.; Matthews, V.; Farrant, B.; Butt, A.; Walker, I.; Chu, C.; Dennekamp, M.; Espinoza Oyarce, D.A.; et al. A Research Translation, Implementation and Impact Strategy for the Australian Healthy Environments and Lives (HEAL) Research Network. Int. J. Environ. Res. Public Health 2023, 20, 6383. <https://doi.org/10.3390/ijerph20146383>
- Macías, L.P.; Ramos, M.d.M.S.; Rico, C. Study on the usefulness of machine translation in the migratory context: Analysis of translators' perceptions. Open Linguist. 2020, 6, 68–76. <https://doi.org/10.1515/opli-2020-0004>
- Merschel, L.; Munné, J. Perceptions and practices of machine translation among 6th–12th grade world language teachers. L2 J. 2022, 14, 60–76. <https://doi.org/10.5070/1214154165>
- Mirzaye, S.; Mohiuddin, M. Digital Transformation in International Trade: Opportunities, Challenges, and Policy Implications. J. Risk Financial Manag. 2025, 18, 421. <https://doi.org/10.3390/jrfm18080421>
- Oxford University Press. Oxford Reference: Dictionary of Finance and Banking, 8th ed.; Oxford University Press: Oxford, UK, 2024. Available online: <https://www.oxfordreference.com>
- Oztaskin, H.S.; Iyit, N.; Alkan, O. Citizen attitudes towards e-government services during the COVID-19 pandemic: A case in Türkiye. Heliyon 2024, 10, e35041. <https://doi.org/10.1016/j.heliyon.2024.e35041>
- Prokopenko, O.; Ivliieva, O.; Korshevniuk, T.; Koldovskiy, A.; Shostak, I. The Role of Digital Technologies in Ensuring the Inclusivity of Distance Education. Rev. Conrado 2025, 20(103), e4431. <https://lib.iitta.gov.ua/id/eprint/745198/1/%D0%A1%D1%82%D0%B0%D1%82%D1%82%D1%8F%20WoS.pdf>
- Reiss, K.; Vermeer, H.J. Grundlegung einer allgemeinen Translationstheorie; Niemeyer: Tübingen, Germany, 1984. Available online: <https://books.google.com/books?id=QOpQAwwAAQBAJ>
- Rossetti, A.; O'Brien, S.; Cadwell, P. Comprehension and trust in crises: Investigating the impact of machine translation and post-editing. In Proceedings of the 22nd Annual Conference of the European Association for Machine Translation, Lisboa, Portugal, 3–5 November 2020; pp. 9–18.
- TermCoord, European Parliament. EU Glossary of Financial and Economic Terms; TermCoord: Luxembourg, 2024. Available online: <https://termcoord.eu>
- UNESCO. UNESCO Thesaurus: A Structured List of Descriptors for Information Retrieval and Translation; UNESCO: Paris, France, 2023. Available online: <https://vocabularies.unesco.org>
- Vanjani, M.; Aiken, M. A comparison of free online machine language translators. J. Manag. Sci. Bus. Intell. 2020, 5, 26–31. <https://doi.org/10.5281/zenodo.3961085>
- Zhang, Y.; Bilawal Khaskheli, M. The Role of Digital Technologies in Advancing Sustainable Economic Development into Intersections of Policy, Law, Environmental Economics, and a Comparative Study of China, the EU, and the USA. Sustainability 2025, 17, 8666. <https://doi.org/10.3390/su17198666>
- Pragglejaz Group. MIP: A Method for Identifying Metaphorically Used Words in Discourse; Metaphor and Symbol 2007, 22, 1–39. <https://doi.org/10.1080/10926480709336752>