Veracity Technology Spearhead

Enabling end-to-end veracity within value exchange ecosystems

Quantifying Veracity Requirements Debt in Software-based Technology: A Conceptual Model and Perceptions from Industry

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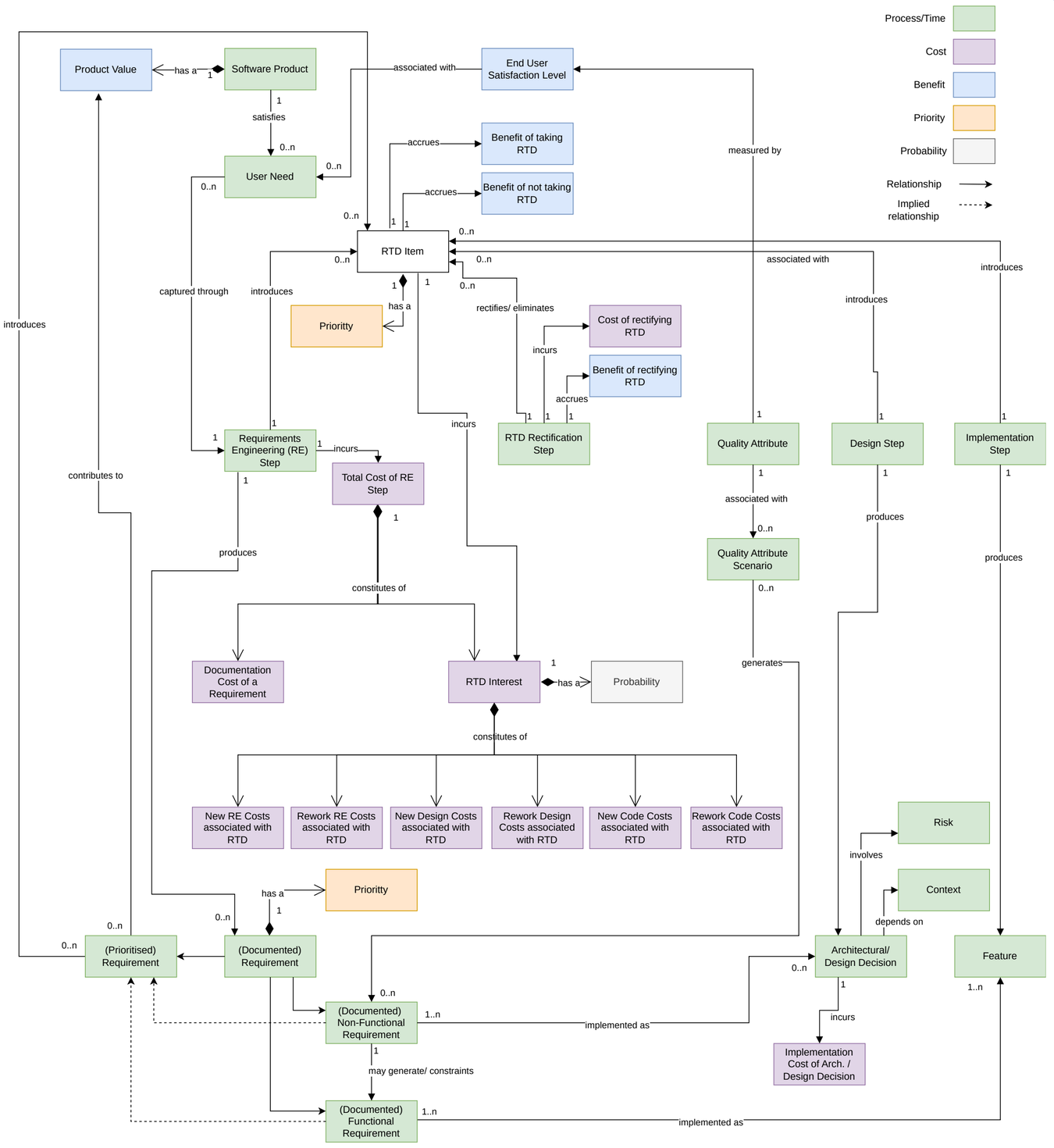
Veracity Requirements Technical Debt Quantification Model (RTDQM)

- The **Veracity Requirements Technical Debt Quantification Model (RTDQM)** captures **concepts related to the quantification** (i.e., measurement or estimation) of Veracity Debt and illustrates the relationships between those concepts.

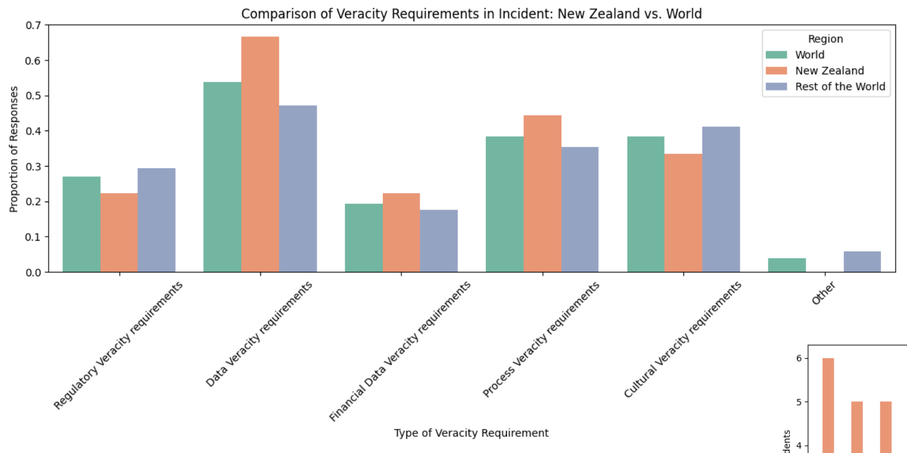
- The **purpose of our conceptual model** is to help researchers and practitioners understand **what concepts must be quantified** to **make informed decisions** regarding the **management of Veracity Debt** and **what concepts may need to be supported with metrics for their quantification.**

- **'RTD Interest'** is an important concept captured in the model that is equivalent to 'Interest' paid on Financial Debt in real life. Interest can be accumulated in the form of **rework** or **new work** in the Requirements Engineering, System Design and Implementation phases in a software project. For example, **as a consequence of incurring Veracity Debt, some parts of the system may require a redesign or a re-implementation** leading to the consumption of more resources and delayed development.

- **Accumulating Interest could lead to adverse consequences** such as a **bad reputation** for the software company, **for example, if requirements related to Regulatory Veracity are unmet.** As another example, **if requirements related to Data Veracity are not adequately implemented, this may cause security and privacy concerns in the future.**

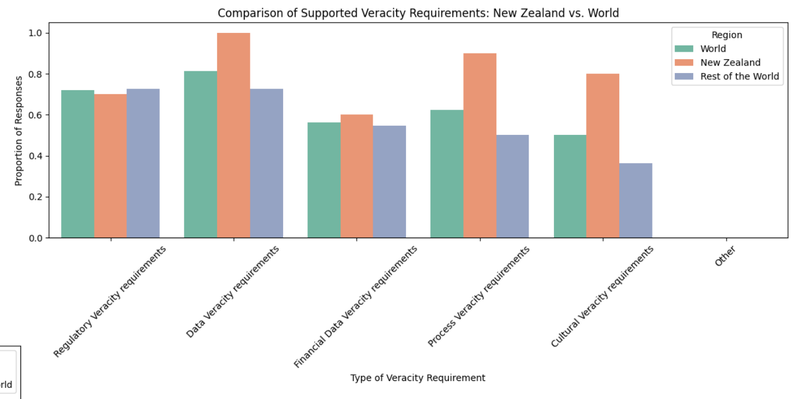


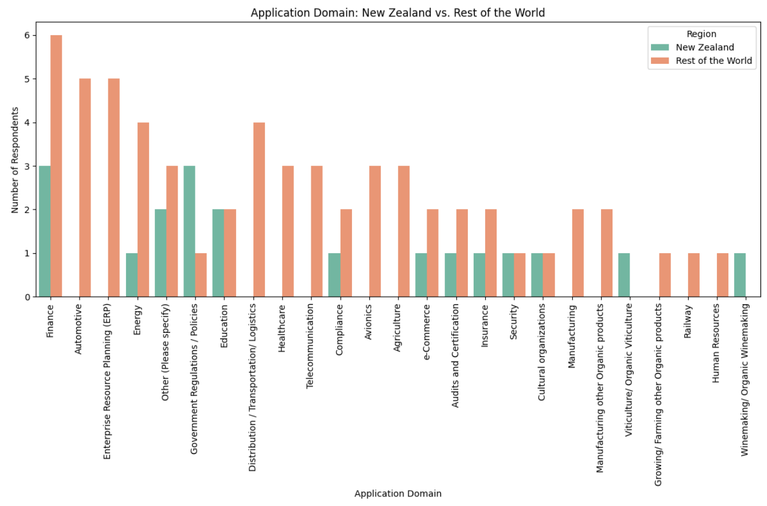
Data Veracity Requirements are the most common type reported in the most critical incidents practitioners discussed. **67% of NZ Respondents**, 47% of Rest of the World and 54% of respondents for World including NZ.



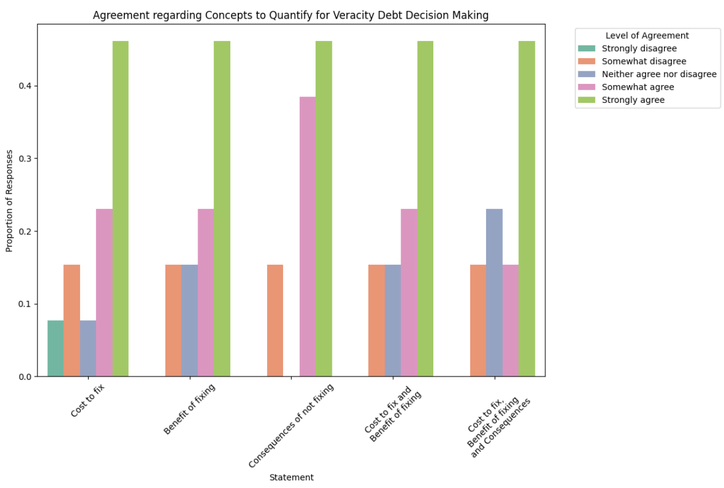
Perceptions from Industry

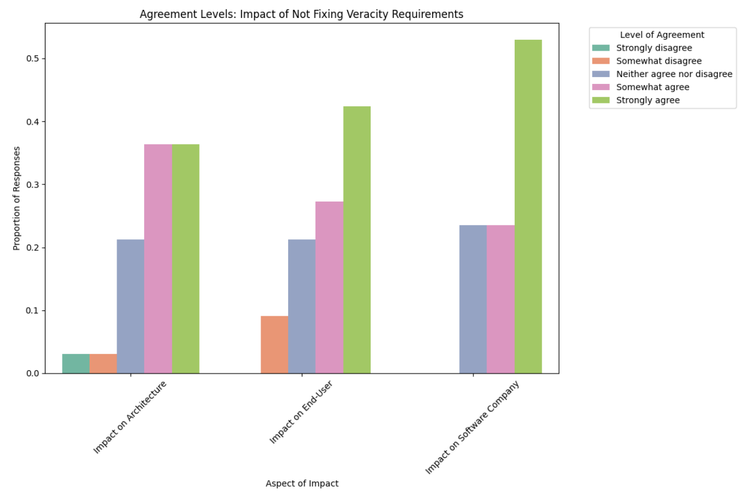
Cultural Veracity Requirements receive more attention in New Zealand compared to Rest of the world. **80% of NZ Respondents vs. 37% of Rest of the World.** (50% of respondents for World including NZ)





For NZ respondents are mostly from **Finance, Gov. Regulations and Policies. For Rest of the World** respondents are mostly from **Finance, Automotive and ERP**





Most respondents agree that **'Consequences of NOT Fixing (i.e., Veracity RTD Interest)'** must be quantified for debt management decision-making.
Some respondents strongly disagree that the '**Cost to fix**' should be the factor considered for debt management decision-making.

Most respondents agree that the '**Impact on the Software Company**' (e.g., in terms of potential ROI, product success, and company reputation) is high for veracity debt.
However, the opinions are mixed regarding the '**Impact on software architecture**' (e.g., rework on the software architecture or data infrastructure) and the '**Impact on the end-user**' (e.g., end user desired level of veracity is not met).

If you're a Software Practitioner and would love to share your experiences with us you can register here to get an invite for a conversation with us!

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