Utilizing qualitative components of risk management as evidence on how university strategies meet QA criteria and standards.

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Abstract

Risk management (RM) in higher education is becoming a new paradigm applied to quality assurance (QA) as the appetite for regulatory compliance becomes stronger than the one for accreditation or audit processes. This paper discusses how elements of RM can be embedded within university units to provide QA agencies with evidence of performance from the perspective of how decisions are arrived at. One way of documenting decisions and subsequent actions relating to rationale for actions taken by higher education institutions (HEIs) is through the inclusion of a SWOT analysis into the risk assessment process and linking these into existing institutional evaluative frameworks. Rather than only relying on formulaic results derived from externally or internally determined thresholds to gauge and judge university actions – and hence only focusing on whether these satisfy expectations – the use of SWOT adds a qualitative component that documents how risks and tolerance parameters are identified and then monitored in relation to identified and enacted institutional decisions at the institutional, unit or subunit levels.

Introduction

Standards are becoming an instrument of coordination and regulation and RM is a symptom of this phenomenon tied to globalization and modernization (Brunnson & Jacobsson, 2000; Power, 2007; Timmermans & Epstein, 2010). One reason is that standards give regulatory compliance a means of embedding norms that policy makers want obeyed (Casey & Scott, 2011). Risk provides a focus on attribution and acts as an attribute of trust (Holmström, 2007; Luhmann, 1995). In other words, there is an evaluation of risk associated with acts or there is a determination of whether an institution is trustworthy and can be relied upon (Nickel & Vaesen, 2012). A second reason is that risk reflects the biases found within the prevalent worldview defining what threats and opportunities embedded within strategic choices made to avoid, mitigate or remediate risk and reduce uncertainty (cf. Wildavsky & Dake, 1990; Oltedal, Moen, Klempe, & Rundmo, 2004; Project Management Institute (PMI), 2013).

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RM is slowly becoming part of the quality assurance apparatus in higher education. The UK has been thinking of making it a mainstream element of its QA after promoting its use for decades and the USA indirectly applies some of its aspects through the Sarbanes-Oxley Act of 2002 via NACUBO recommendations and changes to accreditation review practices (Griswold, 2005; Padró, 2014). In the meanwhile, Australia has formally established an RM component to its regulatory compliance approach toward higher education QA through its Tertiary Education Quality and Standards Agency (TEQSA) which defines compliance as a balance between its *Risk Assessment Framework* (RAF), its threshold standards and the Australian Qualifications Framework (Padró & Kek, 2013).

TEQSA's RAF establishes risk from two over-riding concerns: overall risk to students (student load, experience and outcomes; academic staff profile) and overall risk to financial position (financial viability and sustainability; regulatory history and standing). In this regard, it reflects what Corson (1975) called a bifurcation problem stemming from functionalities and what Blau (1994) termed a difference in jurisdictions; namely, the distinction between academic-professional concerns and business-bureaucratic matters (cf. Hendrickson, Lane, Harris, & Dorman, 2013). Trustworthiness in higher education has as its controlling sensibilities, (Luhmann, 1995) academic judgments impact students' abilities to learn and later get a job, and on sound business decisions. Policy steering preferences say these are the two concerns upon which HEIs must be accountable. However, the organizational complexity which Cohen, March, and Olsen (1972) called organized anarchies or the garbage can model because of problematic preferences, unclear technology (processes), and fluid participation impacting decisionmaking makes it difficult for regulators looking from the outside in to fully determine what is happening within an HEI without an audit review process. More problematic is that accountability of complex systems by itself may actually damage trust of the institutions and the sector as a whole (Evetts, 2006). As a result, there is a need to look at qualitative as well as quantitative elements (which is preponderant in RM methodology – Power, 2007), especially surrounding decisionmaking when ensuring compliance from a risk perspective and the tolerance for impact derived from contingencies encountered as a result of decisions/strategies pursued. Organizational culture does make a difference.

Pfeffer (1992) suggested that it may be more appropriate to think of decisions as unfolding than being made. This is true for both the academic-professional and business-bureaucratic elements of an institution. QA from both the sense of verification that control is being maintained (Juran & Godfrey, 2000) and operational or substantive innovation (cf. Tierney, 2012), the focus of attention is probably better at the unit level than at the campus as a whole level (Hearn & McLendon, 2012). It is also a good idea to merge evaluative practices in a reciprocal manner so that regulatory compliance approaches can use the evidence from the unit level as well as positively influence unit level practice, an approach consistent with Bolman and Gallos' (2011) view that institutional effectiveness is enhanced by creating structures that minimize barriers and pull things together. This paper suggests an approach to incorporating decision identification as evidence from the risk lens as there is risk in decisionmaking (Luhmann, 1993) and, conversely, 'risk talk creates an expanded domain within which decisions are demanded' (Hutter & Power, 2005, p. 9). The approach provides an alternative path that focuses on backcasting rather than forecasting (Jablonowski, 2007) in that the focus is to generate evidence from how decisions came about, i.e., looking at intentionality (Lenman, 2008).

Risk as a quality assurance element

Risk becomes a *sensemaking* proposition because risk is a quantified or well-characterized type of uncertainty, especially for those deemed to have an impact on the public (Weick, 1995; Nickel & Vaesen, 2012). Decisionmaking, therefore, can be a choice between prospects or gambles *vis a vis* the creation and protection of value (Kahneman & Tversky, 1979; AS/NZS ISO 31000: 2009). According to Hansson (2009), assessing risk entails identifying what unwanted event could occur and its cause(s). The risk management process then often attempts to create a statistical expectation value to generate the perception that decisions are made under the conditions of known probabilities through a statistical analysis. Thus the emphasis is on predicting what could go wrong and, through anticipation, mitigate for its plausibility. This is why key risk indicators (KRIs) are different than key performance indicators (KPIs); however, administrators (internal and external) will tend to look at how the parameters for the statistical elements were created to determine appropriateness.

Bringing risk into QA in higher education adds the element of accounting for uncertainty and the positive or negative effects on organizational objectives and outcomes (cf. PMI, 2013). From a government or regulatory perspective, how risk is identified and managed equates to a mutually recognized, contract-like determination that reasonable and proper precautions are in place to minimize the deleterious effects derived from organizational decisions (Scanlon, 1998; Lenman, 2008). Also, in contrast, the attention to possible innovative change resulting from the exercise emphasizes new value creation for stakeholders (Baldrige Performance Excellence Program, 2013). The result has become a 'new contractualism' where academic output and success becomes a quantified value (Blackmore & Sachs, 2000) at the expense of context (mission, vision, philosophy, values).

Traditional RM is usually based on a simple identify-assess-treat (I-A-T) model which is done in a *post facto* basis (Jablonowski, 2007), ergo the preference for quantifiable parameters as can be seen in the two versions of the TEQSA risk frameworks (2012, 2014). Traditional RM also has a utilitarian approach to it that is similar in approach to QA or other forms of regulatory compliance mechanisms. This is worth noting for a number of reasons: [1] the balance of the interaction between regulator and HEI which impacts capacity for autonomy, [2] risk tends to be evaluated by both external and internal entities by the expected utility of decision (choice) consequences (von Neumann & Morgenstern, 1947; Friedman & Savage, 1948), and yet [3] not all decisions (choices) are always based on rational utility thinking (Allais' Paradox – 1953) because of the prevalence of other subjective values (psychological) impacting decisions resulting in the pursuit of a different action path (cf. (Wagenmakers, Wetzels, Borsboom, van der Maas, & Kievit, 2012). This returns the reader back to the importance of trust, its establishment and maintenance. The challenge is generating reciprocal trust between the HEIs and their regulatory, coordinating or oversight agency and other governmental and legislative entities. As a result, RM has a similar potential bounding effect as QA schemes of eliciting a defensive response to actions made or approaches reported to minimize consequences that have to be accounted for in determining performance excellence and/or look at optimal situations based on least favourable values to evaluate appropriate institutional responses, i.e. creating a *minimaxing* environment (Padró, 2013).

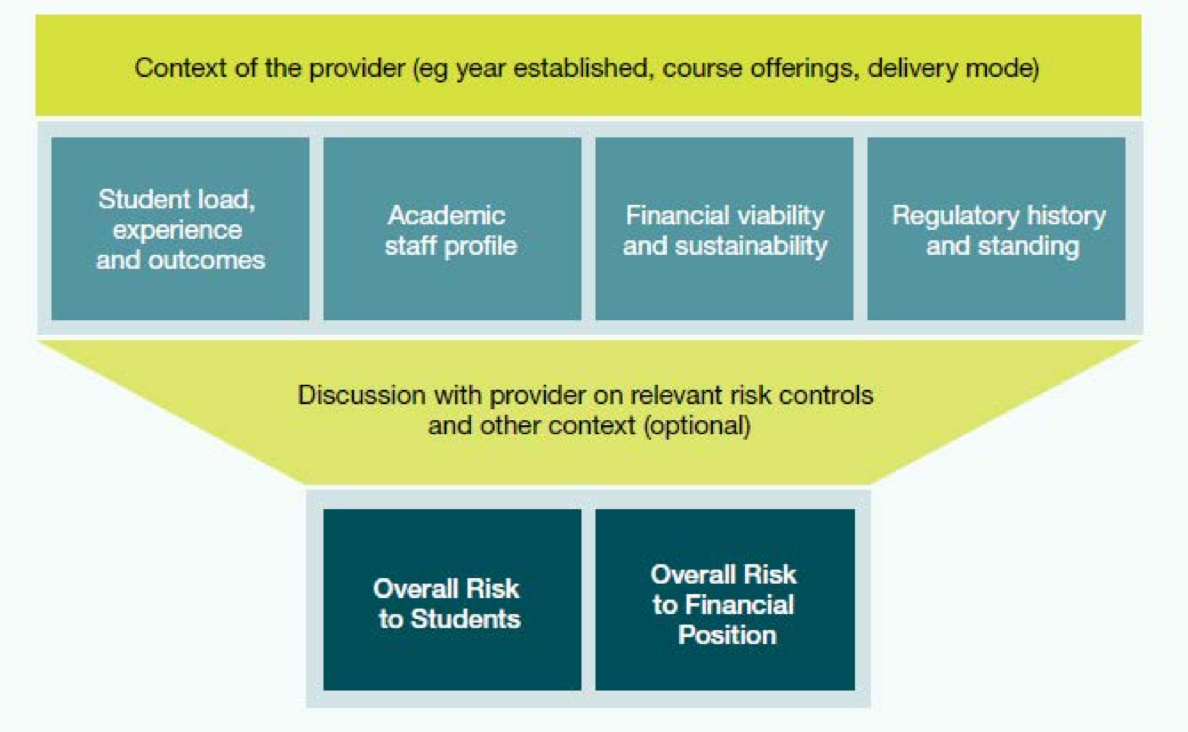
I-A-T Model of RM

TEQSA's approach to RM follows the IAT model in that it seeks to identify, assess and treat risk as a means of defining and delineating acceptable performance parameters. As such, it provides an alternative to the traditional quality concern for variability (Deming, 1994) in its ability to define risk tolerance or attitudes to results that create contingent discrepancies. On the other hand, reliance on quantitative formulation of key risk factors (KRF) over a qualitative risk analysis (PMBOK® (PMI, 2013) suggests as part of the management process) may create a barrier in understanding what Kahneman and Tversky (1979) called *failure of invariance* – describing inconsistent choices when the same issues appear from different perspectives.

Operational risk (OR) translates 'killer' events into routines, regulation and data collection processes (Power, 2007). How it is managed is traditional in the sense that it has an input, tools and technique, and output considerations (PMI, 2013). According to the Malcolm Baldrige National Quality Award Education Criteria (Baldrige Performance Excellence Program, 2013):

> Data and information might relate to student, other customer, and market requirements, expectations, and opportunities; learning-centered education to ensure student achievement; your core competencies; the competitive environment and your performance now and in the future relative to competitors and comparable organizations; education reform; technological and other key innovations or changes that might affect your programs and services and the way you operate, as well as the rate of innovation; workforce and other resource needs; your ability to capitalize on diversity; opportunities to redirect resources to higher-priority programs or services; financial, societal, ethical, regulatory, technological, security, and other potential risks and opportunities; your ability to prevent and respond to emergencies, including natural or other disasters; changes in the local, national, or global economy; requirements for and strengths and weaknesses of your partners and supply chain; changes in your parent organization; and other factors unique to your organization' (p. 11).

For example, TEQSA has an annual risk assessment cycle for all providers during the first half of the year based on collecting and analysing data from various sources, with the analysis focusing on its own 'risk indicators, guided by risk indicator thresholds, trends, and other relevant context' (TEQSA, 2014, p. 3), i.e., as the basis for a qualitative analysis. Figure 1 identifies the four context and two overall areas of risk. There are 12 indicators used in making determinations within these zones: *student profiles and outcomes* (cohorts completed, student load, attrition rate, progress rate, completions, student satisfaction, graduate destinations), *staff resources and profiles* (senior academic leaders, student-to-staff ratio, number of casual academic staff) and *financial viability* (financial viability, financial sustainability). Each of the indicators has a published formula defining acceptance parameters. Rather than drawing conclusions about compliance, the analyses identify potential risks of non-compliance. The indicators are consistent with areas of concern many QA agencies have to account for in many of their review processes.



source: TEQSA RAF, 2014, p. 5

Figure 1. TEQSA key areas considered in risk assessment

TEQSA also publishes the risk formulae they use for their twelve identified indicators. The indicators themselves and the calculations are standard in approach, thus on the surface not controversial and typically used in other jurisdictions. Figure 2 provides the complete description, risk elements, calculation and data sources for the first ten indicators; however, for space reasons only the first formally defined aspects of financial viability and financial sustainability are provided. Questions that arise from looking at the formulae are:

1. Why were these formula used?

2. What are the general threshold levels of acceptable performance?

3. What were the decisions made in identifying these indicators as useful and how does monitoring these indicators link back to decisions?

Some of these answers can be ferreted out in reading TEQSA's creation legislation and in other various internal documents, but there is no clear linkage as to appropriateness of process and indicators underlying the regulatory compliance process that has been put in place, a deficit that this model can help remedy.

Indicator	Description	Risk elements	Calculation	Data source
1. Cohorts completed	At least 3 cohorts of students completed and 5 years of higher education delivery undertaken at the institutional level.	R1 = Number of cohorts Completed R2 = Number of years of Delivery	R1 < 3 and/or R2 < 5	TEQSA/HEIMS/PIR
2. Student load	Department of Education (DoE) Definition: % change of total student load in course by EFTSL (Equivalent Full-Time Student Load) over a specified period.	R1 = Total EFTSL for Reference Year R2 = Total EFTSL for Reference Year – 1	% change in student load = $\frac{R1 - R2}{R2} \times 100$	HEIMS/PIR
3. Attrition rate	% of 1st year commencing students (higher education only) in a year who neither complete nor return to study in the following year to the total commencing students. Adjusted attrition rate may be used if available. Trend may also be considered.	R1 = Commencing students (headcount) in Year X (Cohort A) R2 = Cohort A Continuing students (headcount) in Year X + 1 R3 = Completed students (headcount) in Year X (Cohort A)	Per HEIMS Calculation 1st year Attrition Rate = $\frac{R1 - R2 - R3}{R1} \times 100$	HEIMS/PIR
4. Progression rate	DoE Definition: % actual student load (EFTSL) for units of study that are passed to all units of study completed (passed + failed + withdrawn), in the last academic year or 12 month period. Trend may also be considered.	R1 = Actual student load (EFTSL) for units of study that are passed in the last academic year or 12 month period R2 = Actual student load (EFTSL) for units of study that are failed in the last academic year or 12 month period R3 = Actual student load (EFTSL) for units of study that are withdrawn in the last academic year or 12 month Period	Per HEIMS Calculation 1st year Attrition Rate = $\frac{R1 - R2 - R3}{R1} \times 100$	HEIMS/PIR

5. Completions (by Undergraduate/ Postgraduate Coursework and Higher Degree by Research, as applicable)	DoE Definition: % change total Undergraduate (UG) and Post Graduate (PG) Coursework / Higher Degree by Research (HDR) student completions in the Reference Year. Absolute level and trend may also be considered.	R1 = Completions for Reference Year R2 = Completions for Reference Year – 1	% change in completions = $\frac{R1 - R2}{R2} \times 100$	HEIMS/PIR
6. Graduate Satisfaction (by Undergraduate/ Postgraduate Coursework and Higher Degree by Research, as applicable)	Mean % agreement (agree + strongly agree responses) of Overall Satisfaction Item (OSI) of the (Undergraduate & Postgraduate Coursework) Course Experience Questionnaire (CEQ) administered by Graduate Careers Australia. Mean % agreement of Overall Satisfaction Item (OSI) of the (Higher Degree Research only) Postgraduate Research Experience Questionnaire (PREQ) administered by Graduate Careers Australia. Where providers do not participate in national surveys, other survey results and trend may be considered. Generally, to be considered they would achieve a minimum response rate of 35% for the relevant cohort and broadly conform to the definitions in this table (measure of overall course satisfaction).	R1 = Total number of responses to questionnaire in Reference Year R2 = number of positive responses to questionnaire. Could be "moderately agree, agree, somewhat agree, strongly agree".	Mean percentage agreement = $\frac{R2}{R1} \times 100$	GCA/PIR

7. Graduate destinations	% bachelor graduates in full-time employment or full-time study Graduate Destination Survey (GDS) mean full-time employment of those seeking fulltime employment, and further study of those seeking further study. Where providers do not participate in national surveys, other survey results and trend may be considered. Generally, to be considered they would achieve a minimum response rate of 35% for the relevant cohort and broadly conform to the definitions in this table for destinations.	R1 = Total number of responses to questionnaire R2 = Total number in full time employment R3 = Total number in full time study R4 = the number of students who did not want to pursue further study or full time employment	% bachelor degree graduates in full-time employment or full-time study = $\frac{(R2 + R3)}{(R1 - R4)} \times 100$	GCA/PIR
8. Senior academic leaders	Ratio of total academic staff (headcount) at Levels D and E (or equivalent as coded in PIR), or above, to the number of ASCED BFOEs offered. Equivalency in terms of qualifications, experience and duties may also be considered, as may salary levels.	R1 = Above Senior Lecturer (headcount) R2 = Number of BFOEs	Ratio of Senior Academic Leaders (headcount) to the number of BFOE offered = $\frac{R1}{R2} : 1$	HEIMS/PIR
9. Student to staff ratio	Ratio total onshore coursework student load (EFTSL) to total onshore teaching only (TO) and teaching and research (T&R) staff full time equivalent (FTE)	R1 = Total onshore coursework EFTSL in the Reference Year R2 = Total onshore Academic FTE with either a TO or T&R function employed in the	Student to Staff Ratio = $\frac{R1}{R2} : 1$	HEIMS/PIR

	employed by the provider, including casuals. Consideration may be given to trend and offshore SSR data where available.	Reference Year		
10. Academic staff on casual work contracts	% academic FTE employed on a basis other than full time or fractional full time to total academic FTE employed on a full time or fractional full time basis. Trend may also be considered.	R1 = Total Academic FTE R2 = Total Academic FTE less full time and fractional full time staff	% casual academic FTE to total academic FTE = $\frac{R2}{R1}$ x 100%	HEIMS/PIR
11. Financial viability	i. Net result; Adjusted Revenue ii. Current assets; Current liabilities iii. Tangible assets; Total liabilities iv. Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA); Cash outflows for property, plant and equipment; Interest expense; Tax expense v. Operating cash flow; Current liabilities	FV = Financial Viability Indicator FV1 = Operating profit margin % FV2 = Liquidity FV3 = Total Liabilities-to-Tangible Assets FV4 = Debt Service Coverage FV5 = Operating cash flow Ratio a = weighting for FV1 b = weighting for FV2 c = weighting for FV3 d = weighting for FV4 e = weighting for FV5	FV = (FV1 x a) + (FV2 x b) + (FV3 x c) + (FV4 x d) + (FV5 x e) TEQSA also provides formulae for: Operating profit margin % Liquidity Total Liabilities to-Tangible Assets Debt service coverage Operating cash flow ratio	DoE/PIR
12. Financial sustainability	i. Adjusted Revenue ii. Cash outflows for property, plant and equipment; Depreciation iii. Total Employee	FS = Financial Sustainability Indicator FS1 = Change in Revenue % FS2 = Asset (Capital)	FS = (FS1 x f) + (FS2 x g) + (FS3 x h) + (FS4 x i) + (FS5 x j) TEQSA also provides formulae for:	DoE/PIR

	benefits expense; Adjusted Revenue iv. Current year commencing EFTSL; Prior year commencing EFTSL v. Maximum revenue source; Adjusted Revenue	Replacement FS3 = Change in Employee Benefits Ratio FS4 = YoY Change in Commencements (EFTSL) FS5 = Revenue Concentration f = weighting for FS1 g = weighting for FS2 h = weighting for FS3 i = weighting for FS4 j = weighting for FS5	Change in Revenue % Asset (Capital) Replacement Change in Employee Benefits Ratio YoY Change in Commencements (EFTSL) Revenue concentration	

source: TEQSA RAF, 2014, pp. 18- 23

Figure 2. Selected TEQSA 2014 RAF indicators, descriptions, risk elements, calculations and data sources

According to PMBOK® (2013) process, one of the key end-game aspects of IAT is the creation of the risk register that helps identify and shape the various elements of project or organisational behaviour. Figure 2 provides what part of the register can include. Key elements of a risk register bring together goals, purposes, outputs, desired activities, indicators used to monitor activities for success, verification loops, budget and other resource outlays, and assumptions driving actions through the lens of the risk in not achieving desired goals . Wikipedia provides a basic risk register (Figure 3).

Risk category	Risk name	Risk number	Risk probability	Impact	Risk score	Mitigation	Contingency	Risk score after mitigation	Action by	Action when

source: Wikipedia, retrieved at http://en.wikipedia.org/wiki/Risk_register#Example_Risk_Register_in_table_format

Figure 3. Simple risk register found in Wikipedia

What a risk register typically attempts to do is to quantify these various elements to try to determine a tolerance level for unintended results. The activity should also lead to identifying other opportunities that may be identified as a result of this analysis. A typical risk register's category reflects the flow of events (Figure 4). This flow of events is similar to that espoused by ISO 31000 (AS/NZS ISO 31000: 2009) in its embedding of risk into existing organisational management activities rather than adding a new bureaucratic layer (Figure 5).

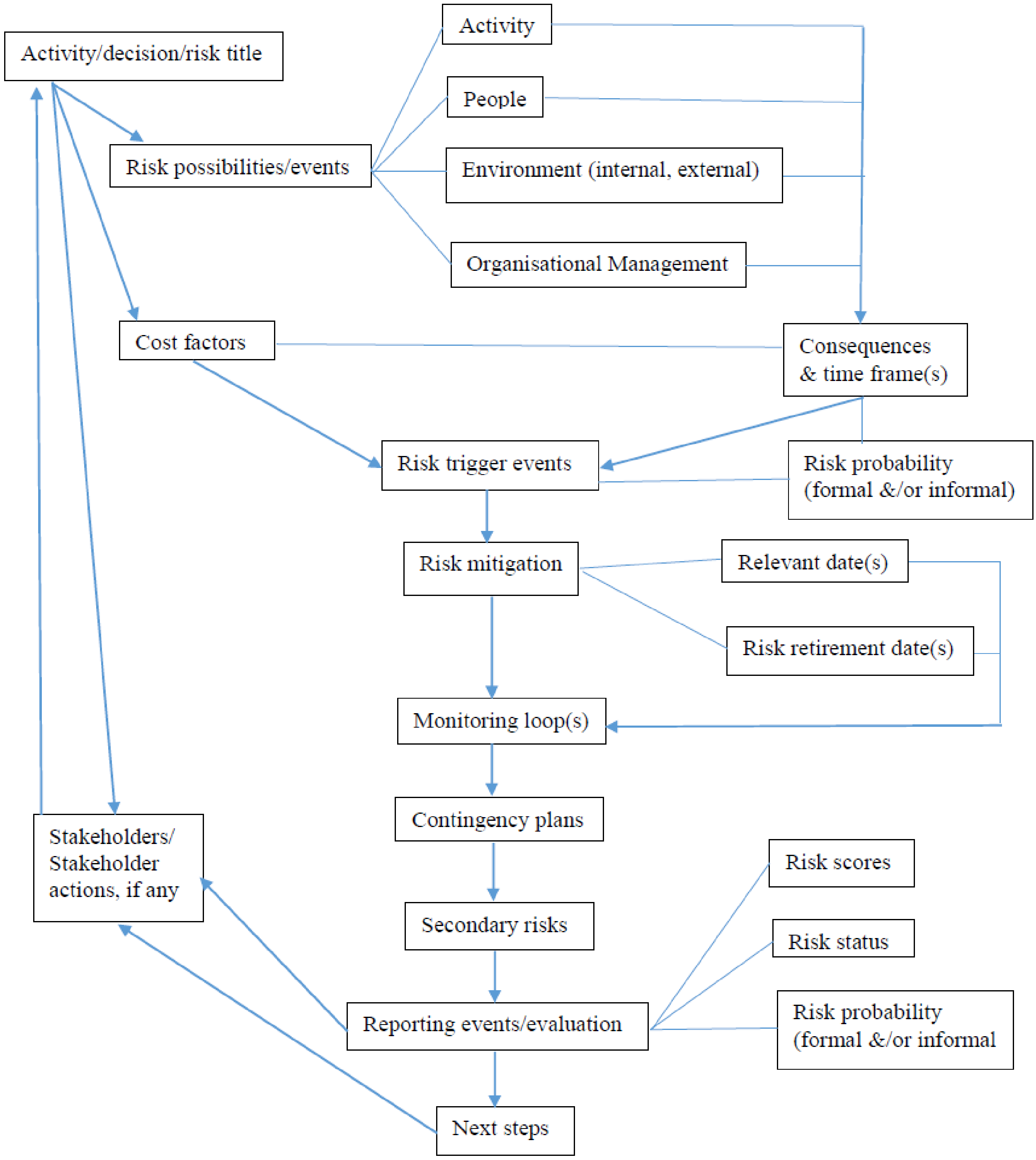
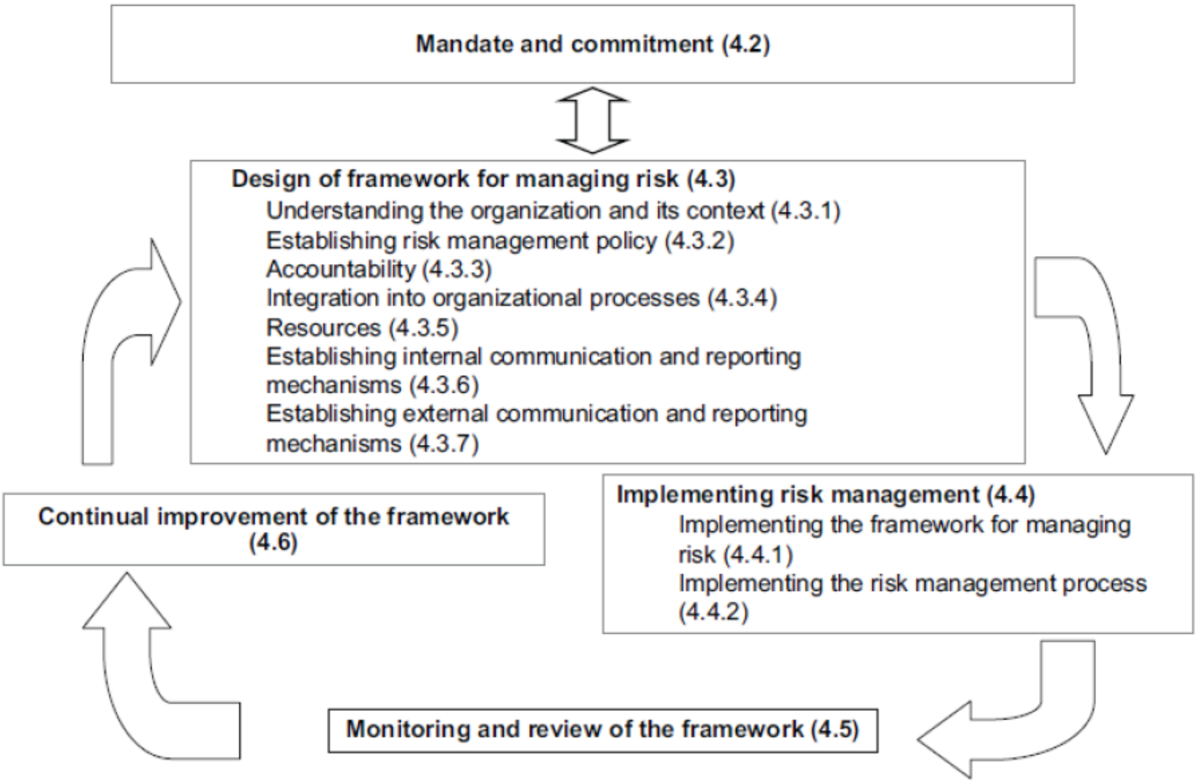


Figure 4. Flowchart of elements and stages of a risk register



source: AS/NZS ISO 31000: 2009

Figure 5. Entrenching RM into existing organisational activity – ISO 31000

Using a SWOT approach toward documenting decisionmaking and risks associated with these decisions

The three challenges of regulatory RM are to [1] reduce the regulatory burden on HEIs, [2] try to embed the practice as a legitimate component of internal QA activities and [3] use compliance as a mechanism for identifying opportunities (hence, innovation). Enterprise RM is different from regulatory RM because the focus is on institutional performance rather than compliance to a regulatory system, although the distinction in certain instances may be more technical than actual based on the nature of the industry type under discussion and the nature of internal control loops. The Casual Actuary Society's (CAS) definition (http://www.casact.org/area/erm/frame.pdf) sets the difference well: 'control, exploit, finance, and monitor risks from all sources for the purpose of increasing the organization's short and long term value to its stakeholders. Where a problem ensues is when using the Committee of Sponsoring Organizations of the Treadway Commission's (COSO) definition emphasises the role of the Board of Directors and a top-down approach, preferring to look at the negative rather than potential positives of risk. This markedly contrasts with the notions of faculty governance with substantial participation from academic staff in the running of academic affairs (Padró, 2014). Creating a divide increases the potential dangers of an outside-looking perspective on performance, a *pro forma* exercise of this approach that may not provide actual substance to this additional layer of QA, creating an actual disconnect between external and internal QA efforts – not to mention kicking in a predilection of *minimaxing* responses to RM activities.

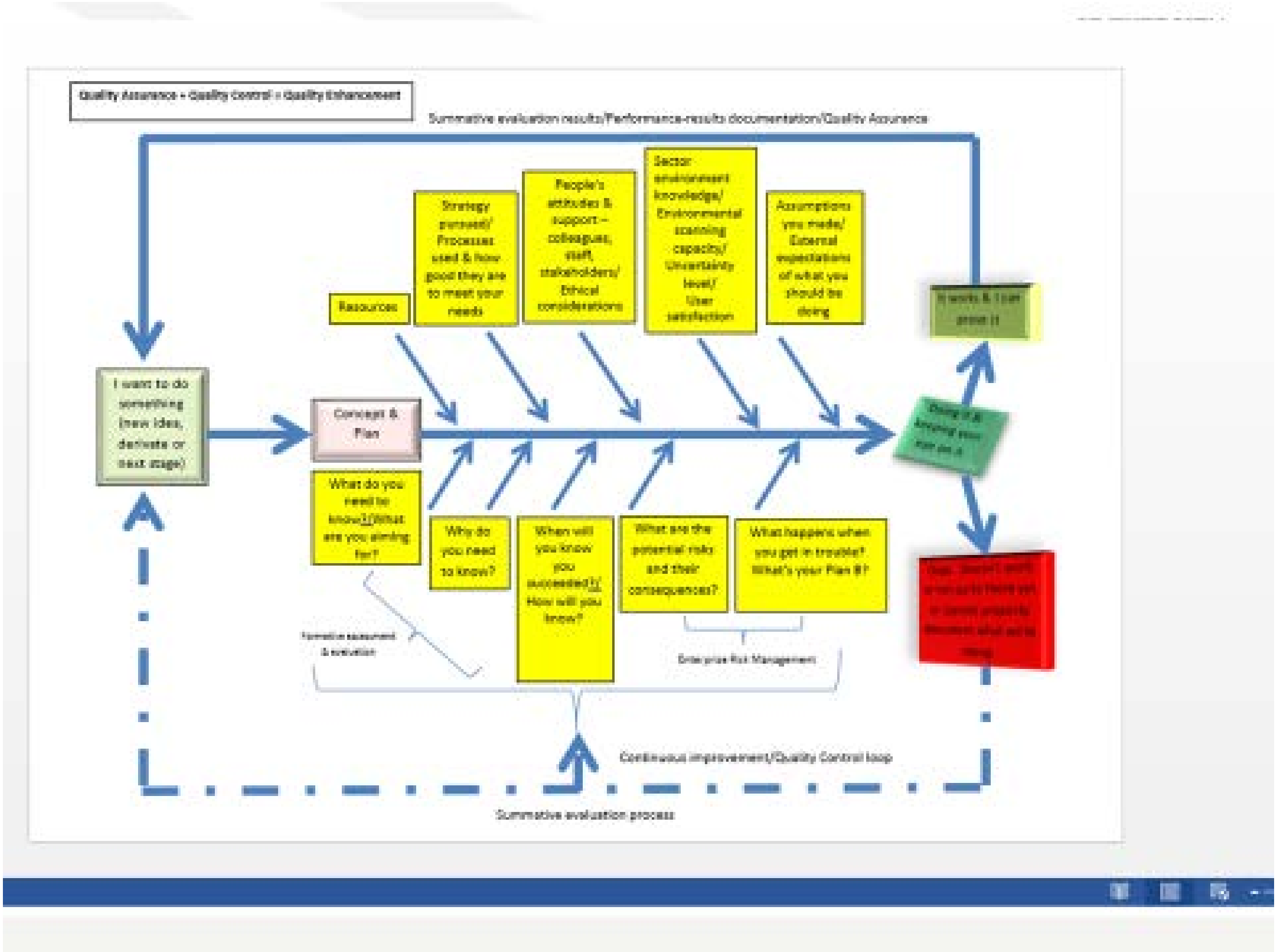
SWOT (strengths, weaknesses, opportunities and threats) analysis is a systematic analysis that looks at strategic situations by diagnosing factors from internal and external environments perspectives (Gao & Peng, 2011). It is not without critics because it tends to be used as a stand-alone tool and thus often used in an unsystematic manner, it relies on subjective intuitions, eschews quantification, and lacks predictive power (Agarwall, Grassl, & Pahl, 2012). It is a retrospective approach of defining current perception of events in an attempt to be forward-looking, if not predictive. However, models have been proposed to overcome these criticisms such as Agarwal, Grassl and Pahl's (2012) meta-level SWOT model and Chang and Huang's (2006) quantified SWOT analysis method. Embedded within these two approaches is a stronger tie to internal evaluation procedures used by organisations. This, in our opinion, is even more critical in higher education as a means to avoid duplication and enhance integration with existing internal and external institutional QA efforts. What is proposed here is a different perspective that can lead to either of these two directions, but what it does most, is to link enterprise and regulatory RM into the existing institutional QA and evaluation activities.

Padró (2014) and Padró and Winwood (2014) suggested that RM should link into existing institutional evaluative procedures that are part of its QA. The rationale is that a frameworks such as Stufflebeam's CIPP (context, inputs, process, product – Stufflebeam & Shinkfield, 2007) or Pawson's (2006) real evaluation provide a context for the additional activities RM represents. Figure 6 shows how RM fits within an evaluation context while Figure 7 shows how a SWOT analysis fits into the evaluative frame and ties to RM.

The difference from a traditional risk register by using SWOT is that it emphasises and documents decisions that lead to action items. As proposed by Padró and Winwood (2014), the SWOT approach is a multi-step process that is dependent on double-loop learning (Argyris & Schön, 1974) that occurs as a result of the reflection exercise that identifies the various elements at play. The first stage requires identifying the following:

1. What is it you do?
2. Do you do it, well, ok or poorly?
3. Evidence
4. Who do you have to convince?

The second step is stakeholder identification, linkage with stakeholder, level of impact stakeholder has on actors and communications approach between actors and stakeholders. The third step is going through an analysis of strengths based on what is really strong and distinguishing it from what is a strength – similar to how quality reviews are done in some settings (Figure 8) while the fourth step is doing the same from a weakness perspective (Figure 9). These can be structured to meet the needs of a summative CIPP perspective. Decisions are thus memorialised in a non-quantitative manner while allowing for a next step of making the quantitative KRIs and their formulae to determine risk or success.



source: Padró, 2014, p. 8

Figure 6. Framework of where RM fits within evaluation processes

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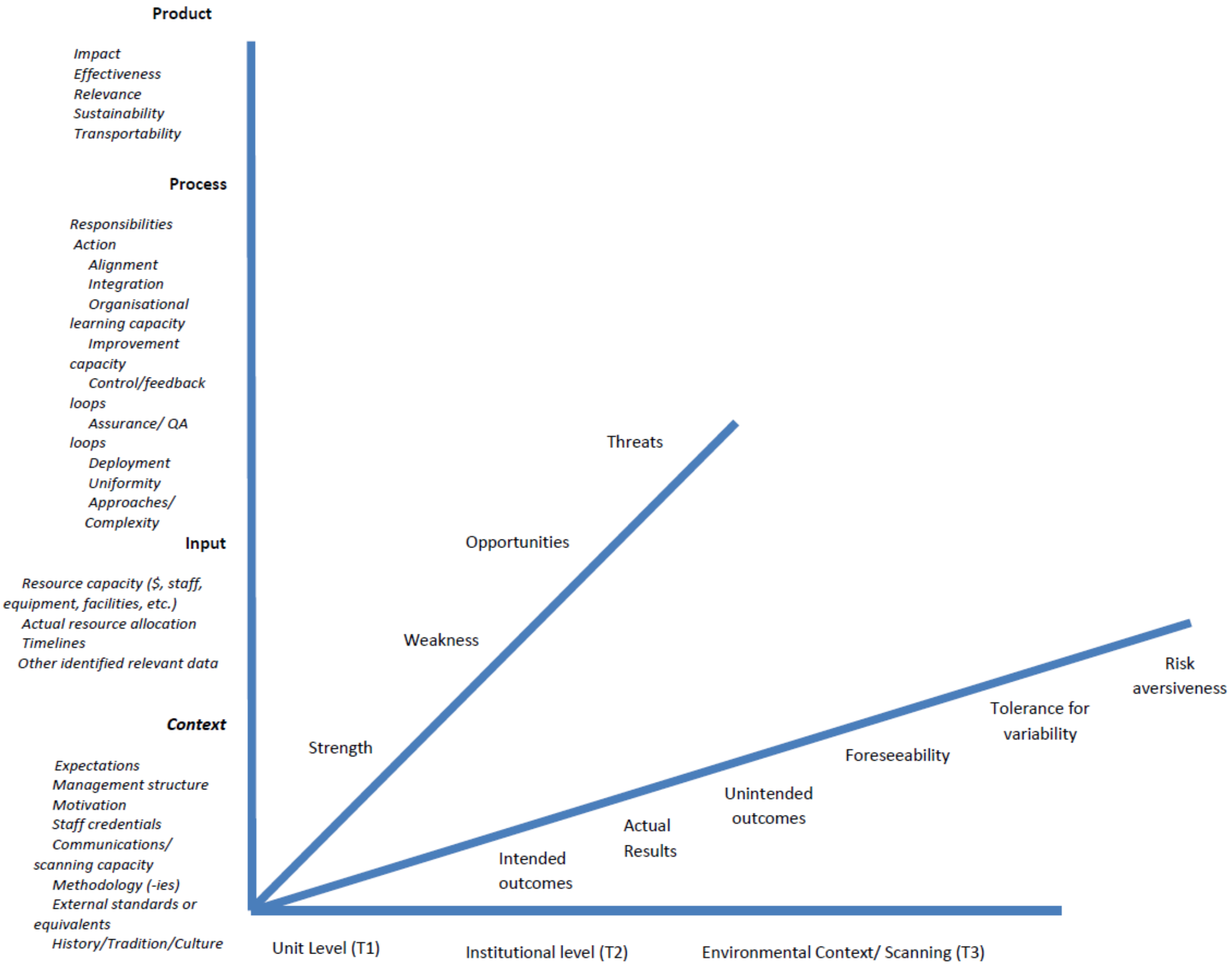
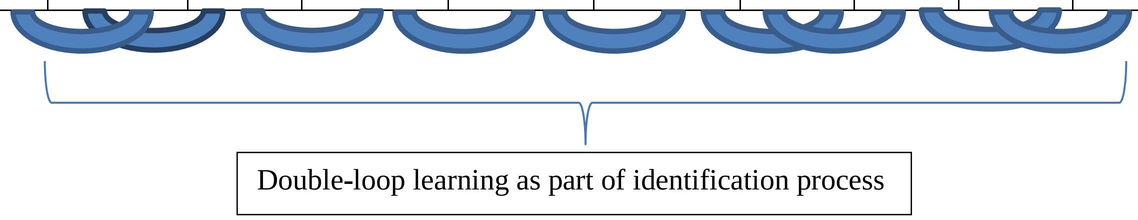


source: Padró & Winwood, 2014, slide 51.

Figure 7. SWOT and risk within a CIPP evaluation framework

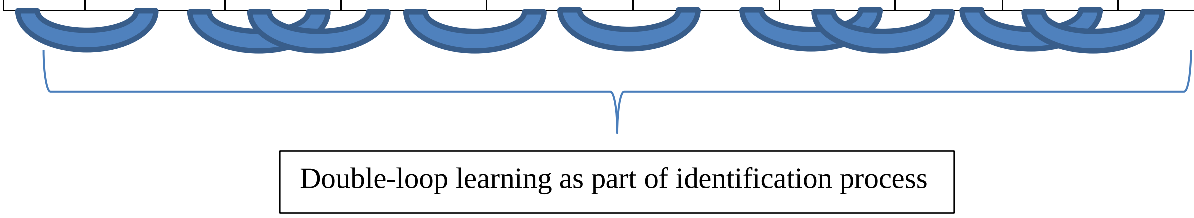
++/+	Assumptions behind decisions	Evidence	Intended consequences	Unintended consequences	Opportunities	Evidence	Threats	Evidence	Success indicators



source: Padró & Winwood, 2014, slide 56.

Figure 8. Strength SWOT analysis

--/-	Assumptions behind decisions	Evidence	Intended consequences	Unintended consequences	Opportunities	Evidence	Threats	Evidence	Success indicators



source: Padró & Winwood, 2014, slide 58.

Figure 9. Weakness SWOT analysis

Conclusions

RM either from a regulatory or enterprise perspective is a developing area. As Power (2007) pointed out, it has an interdisciplinary nature as there are many disciplinary claims to its development and use. In higher education, the literature on its use at the systems, institutional or unit levels is scant and just beginning to develop. Its advantage is that it adds another dimension to QA, RM provides a viable philosophical alternative to the world of quality's emphasis on reducing variation. Learning theory and the benefits of massification depend on providing alternatives to success, thus there is a need to encourage variation in certain aspects of university performance. Notions of risk do this by providing a clearer definition of why the pursuit of different pathways is appropriate laying down rationale for benefits and limitations.

Yet, there is a considerable downside to using RM either at the enterprise and regulatory levels, that of *minimaxing* behaviours. The narrative of its implications is a major cautionary note: HEIs and regulatory bodies have to consider the downside of sanctioning truthtelling when the story is not one of meeting expectations. This is implicit in current QA practices, but the potential negative impact is maximised as a result of using RM.

A second disadvantage of RM is its over-reliance on quantifiable KRIs and formulae to determine acceptable performance parameters. A third shortcoming. Therefore, is either a form of hindsight bias (Wagenmakers, Wetzels, Borsboom, van der Maas, & Kievit, 2012), reductionistic fallacy or paying attention to the wrong items which translates to potentially stifling innovation because the effects are misinterpreted or misunderstood.

This paper suggests a process to document the 'softer', qualitative nature through memorializing the deliberation process that fills the gap identified above (cf. MacLean, 2012) that enhances double-loop learning and capability analysis opportunities A look at TEQSA's RAF calculations shows the benefit of this additional dimension. QA agencies as well as universities can use to communicate the context and rationale of choice (Padró, 2014; Murphy & Gardoni, 2012). Using SWOT generates evidence of decisions and the risk determination exercise itself prior to the development of KRIs. The approach also allows flexibility to add a meaningful analysis of risk to the different elements of traditional evaluation activities typically performed on campuses regarding context (the most obvious), inputs (rationale for resource allocation amounts and type), process checks onto themselves and product (outcome). Focusing on assumptions and intended plus unintended consequences adds a documented exploratory direction that can identify a new approach to achieving desired results.

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