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LexNova: Legal Navigator for Smart Business Management

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ABSTRACT

Small and medium enterprises (SMEs) must comply with a growing body of business law covering company registration, taxation, labour, intellectual property, data protection and commercial contracts. Most SMEs cannot afford continuous legal counsel, so compliance gaps, missed deadlines and poorly drafted agreements expose them to penalties and disputes. This paper presents LexNova, an AI-assisted legal navigator for smart business management. LexNova combines a curated legal knowledge base, retrieval-augmented question answering, contract clause analysis and a compliance risk engine in a single platform. A legal risk-impact methodology is developed that applies the principles of legal-document analysis, risk identification and risk-impact determination. A fuzzy pairwise-comparison approach (triangular fuzzy numbers) is used to derive weights for risk categories from a panel of legal experts, and these weights are combined with timing, range and severity scores to compute an overall Risk Impact Score for each contract and each business process. The methodology is demonstrated through a case study of an SME in Hyderabad, India. The illustrative results show that data-protection non-compliance and contractual liability are the highest-ranked risks, followed by statutory filing delays. The framework gives business owners a prioritised, explainable view of legal exposure and supports timely, informed decisions.

Keywords: *Legal technology, Smart business management, Retrieval-augmented generation, Contract analysis, Compliance risk assessment, Fuzzy decision making.*

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I. INTRODUCTION

Legal compliance has become a core part of running a business. A modern enterprise has to follow company law, goods and services taxation, labour and employment rules, intellectual property rights, consumer protection and, more recently, data-protection legislation. For large corporations these duties are handled by in-house legal teams. For small and medium enterprises the same duties are handled informally, late, or not at all, because professional legal advice is costly and legal text is hard to interpret. 'Effective' legal management therefore needs to fulfil the demands of the business, the applicable statutes and the deadlines attached to them. To sustain such a system, centralised legal knowledge must be combined with the day-to-day operations of the business. An objective approach would work as an applied methodology consisting of document analysis, risk evaluation and case-based guidance. One approach could be developing a legal risk assessment framework supported by artificial intelligence.

Researchers have developed various techniques for legal text processing and decision support. Vaswani et al. (2017) introduced the Transformer architecture, which became the basis of modern language models. Devlin et al. (2019) proposed BERT, a pre-trained bidirectional encoder that improved performance on many language understanding tasks. Chalkidis et al. (2020) presented LEGAL-BERT, a family of models pre-trained on legal corpora, and showed that domain-specific pre-training helps legal text classification. Lewis et al. (2020) proposed retrieval-augmented generation (RAG), in which a generator is conditioned on documents fetched from an external knowledge source, which reduces unsupported answers and allows sources to be cited. For multi-criteria decision making under vagueness, Zadeh (1965) introduced fuzzy sets, Saaty (1980) developed the Analytic Hierarchy Process (AHP), and Chang (1996) proposed the extent analysis method for fuzzy AHP. These techniques are widely used to combine expert judgement with quantitative scoring, but they have rarely been combined in a single tool aimed at business owners rather than lawyers.

To create a realistic model of the legal exposure of a business, a methodology is generated in this paper, which applies the principles of legal knowledge retrieval, risk identification and risk-impact determination. It is implemented in LexNova, a legal navigator that guides an SME through compliance, contracts and legal questions.

II. MATERIAL AND METHODS

This section presents the phase-wise description of the developed risk-impact assessment methodology.

Phase I: Comprehensive Legal Knowledge Acquisition to determine compliance obligations

Primary legal sources such as statutes, rules, government notifications, circulars and standard contract templates are collected and digitised. Each document is recorded with its type, jurisdiction, applicable business category, effective date and amendment history. This gives a detailed count and classification of the obligations that are of interest to the business, such as whether an obligation is statutory or contractual, periodic or one-time, and central or state level.

Phase II: Identifying legal risks that imperil SMEs in an urban business zone

Risk gradients at the study site are identified on the basis of business type, size, sector, contract portfolio, filing history and data-handling practices. This helps in identifying the risks to the business and the processes in which they arise.

Phase III: Formation of Expert Assessment (EA) Team

The EA Team includes 9–10 experts from different fields (practising advocates, company secretaries, chartered accountants, compliance officers and SME owners). Their responsibilities include:

- rating and ranking the questionnaires; and
- giving their valuable opinions to ensure the reliability of the data.

Phase IV: Determining the Risk Impact

The flow of the method is as shown in Figure 1. Following are the steps of determining the risk impact for the business:

Figure 1: The flow of the methodology

Legal knowledge base	Risk identification	Expert scoring (EA Team)	Fuzzy weights	Trigger scoring	Overall Risk Impact Score

Step 1: Identify risk classes and group these into j categories to get Ctj, where Ctj are the risks in each category.

Step 2: Score these Ctj to get the Risk Influence Score SCtji for each t in every j and at each study site i. The scoring is done by the EA Team using a 5-point scale (High-5, Middle-3 and Low-1).

Step 3: Computation of Risk Influence Weights WCtji using the following sub-steps:

Step 3.1: Fuzzy pairwise comparison of each Ctj by the EA Team using the Fuzzy Scale (Table 1).

Step 3.2: Conversion of the fuzzy scale into a triangular fuzzy number (TFN) at = (a1t, a2t, a3t) using the 9-point fuzzy scale (Table 1). The triplet (a1t, a2t, a3t) represents the lower, middle and upper TFN for the risk t.

Table 1: 9-point fuzzy scale

Fuzzy Scale	Triangular fuzzy scale	Description
1	(1,1,1) if diagonal (1,1,3) for equal importance	Equal importance
3	(1, 3, 5)	Moderate importance of one over another
5	(3, 5, 7)	Strong importance of one over another
7	(5, 7, 9)	Very strong importance of one over another
9	(7, 9, 9)	Extreme importance of one over another
2, 4, 6, 8	(1, 2, 4), (2, 4, 6), (4, 6, 8), (6, 8, 9)	Intermediate values

Step 3.3: Formation of the Fuzzy Decision Matrix by aggregating the scores of the EA Team members. For K experts, the aggregated comparison of risks s and t is the geometric mean of the individual triangular fuzzy numbers:

$$\tilde{a}st = (\prod a\ st^k)^{(1/K)}, (\prod a\ st^k)^{(1/K)}, (\prod a\ st^k)^{(1/K)} \quad (1)$$

Step 3.4: Compute the Fuzzy Decision Weights Ft using the geometric-mean method:

$$F = (\prod \tilde{a}st)^{(1/n)} \quad [\Sigma \ (\prod \tilde{a}st)^{(1/n)}]^{-1} \quad (2)$$

Step 3.5: Computation of Decision Weights Dt for the Fuzzy Decision Weights using the α-cut equation:

$$D = [\lambda (F^{L}\alpha) + (1 - \lambda)(F^{R}\alpha)] \quad (3)$$

where Ft^Lα represents the left value of the α-cut for Ft, Ft^Rα represents the right value of the α-cut for Ft, and λ is the optimism index of the decision maker.

Step 3.6: Determining the Risk Influence Weights by normalising Dt so that the weights of each category sum to one.

Step 4: Determining the Site-Risk Impact Weights RCtji for the study sites using the equation

$$RCtji = SCtji \times WCtji \quad (4)$$

Step 5: Score the Ctj according to their timing (Table 2), range (Table 3) and severity (Table 4) in relation to how likely these 'trigger' a legal loss, penalty or dispute at the study site i, to get Risk Trigger Scores TCtji (Equation (5)). The scoring is done by the EA Team members.

$$TCtji = TS + RS + SeS \quad (5)$$

Table 2: Timing of risk

Timing of risk	Timing score (TS)
Happening now (breach or default already exists)	5
Likely in short term (within 1 year)	3
Likely in long term (beyond 1 year)	1
Past (and unlikely to recur) and no longer limiting	0

Table 3: Range of risk

Range of risk	Range score (RS)
Whole business / all contracts (>90%)	5
Most of the business / contracts (50–90%)	3
Some of the business / contracts (10–50%)	1
Few processes / single contract (<10%)	0

Table 4: Severity of risk

Severity of risk	Severity score (SeS)
Very high financial or legal consequence (penalty > 30% of annual turnover or loss of licence)	5
Moderate consequence (10–30% of annual turnover)	3
Minor consequence (1–10% of annual turnover)	1
No or negligible consequence (<1% of annual turnover)	0

Step 6: Now score the contract and business-process sub-types against each Ctj to get the Risk Influence Score for k contracts ICtjik and for l business processes ICtjil. The scoring is done by the EA Team using a 5-point scale (High-5, Middle-3 and Low-1).

Step 7: Computing the Total Risk Impact Score TICtjik using the equation

$$TICtjik = ICtjik \times TCtji \quad (6)$$

and the total process risk impact score TICtjil using the equation

$$TICtjil = ICtjil \times TCtji \quad (7)$$

Step 8: Calculating the overall Risk Impact Score ORCtjik for each category using the equation

$$ORCtjik = TICtjik \times WCtji \quad (8)$$

and

$$ORCtjil = TICtjil \times WCtji \quad (9)$$

System modules of LexNova

The methodology is implemented in LexNova through four cooperating modules (Table 5). The knowledge base module stores indexed legal sources. The question-answering module retrieves the relevant passages and generates a plain-language answer with citations. The contract analysis module extracts clauses, classifies them and flags unfavourable or missing terms. The compliance engine tracks deadlines and computes the Risk Impact Scores described above.

Table 5: Modules of LexNova

S.No.	Module	Function
1.	Legal Knowledge Base	Stores statutes, rules, notifications and templates with metadata (jurisdiction, date, amendments) and vector indices
2.	Legal Q&A Assistant	Retrieval-augmented answers in plain language with source citations and a confidence indicator
3.	Contract Analyser	Clause extraction, clause classification, missing-clause detection and risk flagging
4.	Compliance Calendar	Tracks filings, renewals and statutory deadlines and sends reminders
5.	Risk Engine	Computes weights, trigger scores and overall Risk Impact Scores (Equations 1–9)
6.	Dashboard	Prioritised, explainable view of legal exposure for business owners

III. CASE STUDY: ANALYZING LEGAL RISKS OF AN SME IN HYDERABAD (INDIA)

This section presents the legal risk assessment of a representative small and medium enterprise operating in Hyderabad, Telangana, India. Hyderabad is a major business and technology hub with a large number of start-ups and SMEs in IT services, manufacturing, trading and logistics. These businesses are subject to central laws as well as Telangana state rules, which makes compliance tracking complex. The study site, referred to as SME-1, is a private limited company with about 40 employees, a portfolio of customer and vendor contracts, and a customer database containing personal data.

The business environment of SME-1 and its various compliance aspects (as discussed with the EA Team) are evaluated using the attributes in Table 6. The overarching regulatory changes affecting the business, such as new data-protection rules, amendments in tax law and changes in labour codes, were also assessed. The processes were assessed to understand their compliance condition, documentation trends and the prospects for automation.

Table 6: Attributes assessed for the study site (Source: Self-observation and records of SME-1)

S.No.	Attributes	Value
1.	Legal entity type	Private limited company
2.	Number of employees	Approx. 40
3.	Number of active contracts	To be filled from SME-1 records
4.	Registrations and licences held	To be filled from SME-1 records
5.	Personal data handled	Customer and employee records
6.	Filing history (last 3 years)	To be filled from SME-1 records

3.1 Survey Design

Business processes of the study site

The business processes of SME-1 were reviewed multiple times over a defined study period through document inspection and interviews with the owner, the finance head and the HR manager. The processes were divided into functional units so that compliance data could be collected for each unit separately and later aggregated for the whole business. The structure of the business was divided into first, second and third-level frameworks, which represent the level of detail of each process (Table 7).

Table 7: Hierarchy of business processes at SME-1

First Level	Second Level	Third Level

Corporate Compliance	Company law filings	Annual return, Financial statements, Board minutes
Taxation	Indirect tax	Registration, Monthly returns, Invoicing rules
	Direct tax	Advance tax, Annual return, Deduction at source
Employment	Hiring and exit	Appointment letters, Notice and settlement
	Statutory benefits	Provident fund, Insurance, Gratuity
Contracts	Customer contracts	Service agreements, Payment terms, Liability clauses
	Vendor contracts	Purchase orders, Supply agreements
Data and Technology	Personal data handling	Consent, Storage, Breach response
Intellectual Property	Brand and software	Trademarks, Licences, Ownership of work

The suitability of the above processes for automated legal support was analysed on the basis of the criteria in Table 8.

Table 8: Description of the selected criteria

S.No.	Criteria	Description
1.	Regulatory applicability	Whether a law or rule applies to the business, based on its type, size, sector and location
2.	Temporal validity	Effective date, amendment history and sunset of a provision
3.	Document quality	Completeness, clarity and enforceability of existing contracts and records
4.	Seasonal or periodic obligations	Obligations that repeat monthly, quarterly or annually
5.	Data availability	Availability of records needed to verify compliance
6.	Documentation availability	Availability of templates and prior filings for the obligation
7.	Proximity to deadline	Time remaining before a filing, renewal or payment falls due
8.	Arbitrary legal exposure	Exposure due to new regulations, court rulings and other unforeseen legal events

Contracts and documents of the study site

The contracts and compliance documents of SME-1 were collected over the study period and examined using manual review, clause-level tagging and automated clause extraction. The documents were stratified into groups (customer contracts, vendor contracts, employment agreements and statutory filings), and a sample was selected from each group. Each document was recorded on a legal review data sheet which included document type, parties, governing law, key obligations, clauses identified, missing clauses and the risks observed.

Sampling points were selected on the basis of their importance level (high-value customer contracts, contracts with indemnity or penalty clauses, contracts involving personal data and filings with strict deadlines). Observations were also made at clause level and at document level. In the case of the clause-level method, every clause of the selected document was classified into a standard clause type and checked against a reference checklist.

3.2 Identifying the risks that imperil SMEs in Hyderabad

A list of possible risk gradients to the study site was compiled (Table 9) and was presented to the EA Team for analysing the applicability of each risk gradient to the business at the study site.

Table 9: Risk Gradient

Risk Gradient	Applicable to SME	Likely to affect the business within next 2 years?
Delayed company filings	Yes	Yes
Non-registration or lapsed licences	Yes	Yes

Tax return delays	Yes	Yes
Incorrect tax classification	Yes	Yes
Personal data breach	Yes	Yes
Missing consent records	Yes	Yes
Unlimited liability clause	Yes	Yes
Missing termination clause	Yes	Yes
Ambiguous payment terms	Yes	Yes
Weak confidentiality clause	Yes	Yes
Intellectual property ownership gap	Yes	Yes
Non-compliant employment terms	Yes	Yes
Provident fund and insurance default	Yes	Yes
Workplace policy gaps	Yes	Yes
Change in regulation	Yes	Yes
Pending litigation	Yes	Yes
Defence activities	No	N/A
Academic research grants	No	N/A

The risk gradients were grouped into risk classes. The resulting list displayed in Table 10, as agreed by the Team, formed the basis for the risk assessment.

Table 10: Risk classes

Risk Class	Risk gradient	Type	Components affected
Statutory Compliance	Delayed company filings	Direct	Business, Directors
	Non-registration or lapsed licences	Direct	Business
	Tax return delays	Direct	Business, Directors
Data Protection	Personal data breach	Direct	Customers, Employees
	Missing consent records	Direct	Customers
Contractual Liability	Unlimited liability clause	Direct	Business
	Missing termination clause	Direct	Business, Counterparty
	Ambiguous payment terms	Direct	Business
Intellectual Property	IP ownership gap	Direct	Business
	Weak confidentiality clause	Indirect	Business
Employment	Non-compliant employment terms	Direct	Employees, Business
	Provident fund and insurance default	Direct	Employees
Regulatory Change	Change in regulation	Indirect	Business
	Pending litigation	Indirect	Business

The risk classes were divided into two categories (j = 2):

- Risks direct to the contracts Ct1: These are the risks that are directly affecting the contracts and documents.
- Risks to the business processes Ct2: These are the risks affecting the business processes and thus affecting the contracts also.

Table 11: Risk Categories

Contract Risks	Process Risks
Contractual Liability (CL)	Statutory Compliance (SC)
Intellectual Property (IP)	Data Protection (DP)

Data Protection (DP)	Employment (EM)
Employment (EM)	Regulatory Change (RC)
Regulatory Change (RC)	Contractual Liability (CL)
Statutory Compliance (SC)	Intellectual Property (IP)

3.3 Determining the Risk Impact

Note: The numerical values in this section are illustrative and are provided to demonstrate the working of the methodology. They should be replaced with the actual scores collected from the EA Team and SME-1 records.

Step 1: Each Ctj was scored as shown in Table 12, which helped in computation of the Risk Influence Score SCt1i as shown in Table 13.

Table 12: Ct1 Scoring

Risk class	Level
CL	H
IP	M
DP	H
EM	M
RC	M
SC	H

Table 13: SCt1i

Risk class	Score
CL	5
IP	3
DP	5
EM	3
RC	3
SC	5

Step 3: Determine Risk Influence Weights WCtji using the following steps. Fuzzy pairwise comparison of Ctj was done to determine the triangular fuzzy numbers:

Table 14: Triangular fuzzy number for category 1

	CL	IP	DP	EM	RC	SC
CL	1	(3,5,7)	(1/4,1/2,1)	(3,5,7)	(1,3,5)	(1/4,1/2,1)
IP		1	(1/8,1/6,1/4)	(1,1,3)	(1,1,3)	(1/8,1/6,1/4)
DP			1	(5,7,9)	(3,5,7)	(1,1,3)
EM				1	(1,1,3)	(1/8,1/6,1/4)
RC					1	(1/4,1/2,1)
SC						1

Next the Fuzzy Decision Matrix was formed by aggregating the expert comparisons (Equation 1). The Fuzzy Decision Matrix helped in computing the Fuzzy Decision Weights Ft (Equation 2).

Table 15: Ft for category 1

Risk class	Fuzzy weight (l, m, u)
CL	(0.1120, 0.2410, 0.4980)
IP	(0.0410, 0.0850, 0.1930)
DP	(0.1890, 0.3720, 0.7210)

EM	(0.0480, 0.0990, 0.2210)
RC	(0.0560, 0.1200, 0.2750)
SC	(0.0970, 0.1930, 0.4060)

This helped in calculating the Decision Weights Dt (Equation 3), which were normalised to obtain the Risk Influence Weights WCtji.

Table 16: Dt and WCt1i for category 1

Risk class	Dt	WCt1i
CL	0.2630	0.2060
IP	0.0910	0.0710
DP	0.4370	0.3420
EM	0.1050	0.0820
RC	0.1290	0.1010
SC	0.2530	0.1980

Step 4: RCtji was computed using Equation (4).

Table 17: RCtji for category 1

CL	IP	DP	EM	RC	SC
1.030	0.213	1.710	0.246	0.303	0.990

Step 5: Risk trigger scores of the site are as given below:

Table 18: Trigger Score

	CL	IP	DP	EM	RC	SC
TS	3	1	5	3	3	5
RS	3	1	5	3	3	5
SeS	5	3	5	3	3	3

These were used to calculate TCtji (Equation 5).

Table 19: TCtji

CL	IP	DP	EM	RC	SC
11	5	15	9	9	13

Step 6: Ctj were scored by the EA Team using the Risk Impact Questionnaire (Appendix I) to get the Risk Influence Score ICtjik for the contracts.

Table 20: ICtjik for sample contracts

Contract Code	Contract	CL	IP	DP	EM	RC	SC
CUS-01	Software services agreement	5	3	3	1	1	1
CUS-02	Annual maintenance contract	3	1	1	1	1	1
VEN-01	Cloud hosting agreement	3	1	5	1	3	1
VEN-02	Office lease agreement	3	1	1	1	1	3
EMP-01	Employment agreement	1	3	3	5	1	1
NDA-01	Non-disclosure agreement	1	5	3	1	1	1

Step 7: The Total contract risk impact score TICtjik was calculated using Equation (6).

Table 21: TICtjik for sample contracts

Contract Code	Contract	CL	IP	DP	EM	RC	SC
CUS-01	Software services agreement	55	15	45	9	9	13
CUS-02	Annual maintenance contract	33	5	15	9	9	13
VEN-01	Cloud hosting agreement	33	5	75	9	27	13
VEN-02	Office lease agreement	33	5	15	9	9	39
EMP-01	Employment agreement	11	15	45	45	9	13
NDA-01	Non-disclosure agreement	11	25	45	9	9	13

Step 8: The Overall Risk Impact Score ORCtjik was calculated for category 1 using Equation (8).

Table 22: ORCtjik for sample contracts

Contract Code	Contract	CL	IP	DP	EM	RC	SC
CUS-01	Software services agreement	11.33	1.07	15.39	0.74	0.91	2.57
CUS-02	Annual maintenance contract	6.80	0.36	5.13	0.74	0.91	2.57
VEN-01	Cloud hosting agreement	6.80	0.36	25.65	0.74	2.73	2.57
VEN-02	Office lease agreement	6.80	0.36	5.13	0.74	0.91	7.72
EMP-01	Employment agreement	2.27	1.07	15.39	3.69	0.91	2.57
NDA-01	Non-disclosure agreement	2.27	1.78	15.39	0.74	0.91	2.57

Similarly ORCtjil was computed for the business processes. Finally the ORCtj were calculated for all process groups.

Table 23: ORCtjil for business processes of SME-1

Process	SC	DP	EM	RC	CL	IP
Corporate filings	28.4	2.1	3.2	9.8	4.3	1.1
Indirect tax	31.6	3.5	5.4	14.2	2.2	1.1
Direct tax	24.9	2.1	3.2	9.8	2.2	1.1
Hiring and exit	5.3	12.7	38.1	4.6	4.3	3.6
Statutory benefits	12.6	3.5	29.5	4.6	2.2	1.1
Customer contracts	7.4	25.6	3.2	9.8	34.0	10.7
Vendor contracts	7.4	15.4	3.2	14.2	20.4	5.3
Personal data handling	5.3	51.3	12.8	14.2	6.5	5.3
Brand and software	3.2	5.1	3.2	4.6	8.7	32.1

IV. RESULTS

The computed risk impact score helped in determining the risk impact for the business. The contracts and processes were divided into three risk categories: High Risk (affected by 2 or more risks), Intermediary Risk (affected by one type of risk) and Low Risk (under routine pressure). The values reported below are illustrative and follow from the sample scores in Section III.

Risks to Business Processes

Personal data handling, customer contracts, indirect tax and hiring and exit are among the processes under constant threat from Data Protection (TICt121: 51.3), Contractual Liability (TICt121: 34.0) and Statutory Compliance (TICt121: 31.6) with a significant level of risk impact. Direct tax, vendor contracts and statutory benefits are under moderate pressure.

Figure 2: Risk Impact Range

[Insert bar chart of Risk Impact Scores by risk category from Table 23]

The interpretation of the chart is based on the types of risks and how much they impact the business. Data Protection is the highest while Regulatory Change affects the business mainly in the short term. Data-protection exposure will not only attract penalties but also damage customer trust, so its after-effects are much higher.

Figure 3: Risks to business processes of SME-1

[Insert grouped bar chart of process-wise risk impact scores]

Figure 3 is a detailed illustration of multiple risks that are direct or indirect, and short term or long term, affecting the business processes. The impact comparison shows that customer contracts and personal data handling are under equal pressure, while corporate filings and direct tax are mainly affected by statutory deadlines.

Risks to Contracts

Contractual Liability (ORCt1k: 11.33) and Data Protection (ORCt1k: 25.65) are the main risks at this site. The cloud hosting agreement and the software services agreement show the highest combined risk because of unlimited liability and weak data-processing clauses. Customer contracts, vendor contracts and employment agreements are the most exposed groups, and the other documents are at intermediary risk. These two risks are followed by statutory filing delays.

Figure 4: Risk Impact Range (contract risks)

[Insert chart of ORCtjik for sample contracts from Table 22]

Figure 5: Risks to contracts at SME-1

[Insert chart of number of contracts affected by each risk]

The interpretation of Figure 5 reveals the number of contracts that are being affected by each risk. Contractual Liability and Data Protection stood at the same level as the number of affected contracts is almost equal and their risk impact is also similar. Only Regulatory Change is spread evenly among all the contracts and creates no long-term problem for the business.

Figure 6: Risks to process groups at SME-1

[Insert chart of risk exposure per process group]

Figure 6 depicts which types of processes, based on their function, are being affected by the risks. It further reflects the category of processes that are suffering from a single type of risk and the category that goes as high as facing four risks.

The above results demonstrate that almost all the processes of the study site carry some level of legal risk. To analyse the reasons for this, the compliance management effectiveness of the site was evaluated using a management effectiveness checklist adapted from RAPPAM-style assessments. The absence of a central contract repository and the dependence on manual tracking make the site vulnerable.

Figure 7: Vulnerability at SME-1

[Insert chart of vulnerability scores]

Output points out that the main problem here is the lack of systematic compliance monitoring. The degree of effort for document standardisation and deadline tracking should also be taken into account. The business is suffering from dependence on individual staff and from missing contract templates. Infrastructure for centralised document storage, automated reminders and legal knowledge support is also needed.

Figure 8: Management output

[Insert chart of management effectiveness indicators]

V. DISCUSSION AND CONCLUSION

The developed risk impact assessment methodology offers a realistic approach to assess legal risks for SMEs. It takes into account uncertainty in expert judgement through fuzzy pairwise comparison. The method is interactive and has the advantage of bringing business owners, legal experts and technologists together to develop compliance solutions. The scientific development of the legal risk assessment methodology serves as a useful business management tool. The main goal of the model is to determine the risk impacts of legal risks at the study site, which will help in determining the local compliance status, risk gradients, the contracts that are most exposed and the priority areas for action. Future work includes evaluating answer accuracy of the retrieval-augmented assistant on a benchmark of business-law questions, extending the knowledge base to additional states and sectors, supporting regional languages, and validating the Risk Impact Scores against actual disputes and penalties across a larger set of enterprises.

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