SLR

Test Run

24/11/2023

RQ: What are approaches for aligning business processes with regulatory requirements to achieve regulatory compliance by design?

On 7/11/2023 we discussed I would perform a test: searching the databases with the initial set of search terms mentioned below.

Search terms (Q1-Q5)

1) "business process management" and "regulatory compliance"
2) "business process management" and "regulatory compliance" and "systematic literature review"
3) "business process management" and "compliance risk management"
4) "business process management" and "regulatory risk management"
5) "managing regulatory compliance in business processes"

Synonyms used: "BPM" for "Business Process Management"

Resources to be searched (R1-R6)

A) Web of Science Clarivate
B) ScienceDirect Elsevier
C) SSNR Elsevier
D) arXiv > cs
E) dblp, computer science bibliography dblp
F) zenodo, OpenAIRE repository zenodo

A more description of these databases is included as an appendix. (describe limitations)

Change per 22-11-2023: excluded Scopus, included Zenodo. Change per 01-12-2023: include openAlex

Sum of Quantity	Column Labels						
Row Labels	A. WoS	B. SD	C. SSRN	D. ArXiv	E. dplp	F. Zenodo	Total
1	3	195	-	1	7	2	208
2	-	22	-	-	-	-	22
3	2	4	-	-	2	-	8
4	-	-	-	-	-	-	-
5	-	-	-	-	1	-	1
6	208	10.010	4	5	88	14	10.329
Total	213	10.231	4	6	98	16	10.568

Figure 1: Search Results

Conclusion about search terms

Both "Reglatory Risk Management" and "Compliance Risk Management" did seem valid concepts from an earlier (2021) google scholar search. However, combining these terms with "Business Process Management" or "BPM" yields only (very) few results.

Proposed exclusion / inclusion criteria

- Exclude medical
- Exclude IoT
- Exclude blockchain
- Include Risk Management
- Include Workflow Management Systems

Conclusion about sources

Provided that SSRN yields a total of 0 results on every query (excluding additional query 6) this datasource will not be used for the SLR.

Provided that ArXiv yields a total of 1 results (excluding additional query 6) this database will not be used for the SLR either.

The searches have also been performed on the SocArXiv repository. Here too 0 results.

Steps taken	Databas	QueryN	QuerySubNr	QueryString	Quantit
I original query	A. WoS	Q1	1a	ALL=("business process management" and "regulatory compliance")	1
I original query	A. WoS	Q2	2a	ALL=("business process management" and "regulatory compliance" and "systematic literature review")	0
I original query	A. WoS	Q3	3a	ALL=("business process management" and "compliance risk management")	1
I original query	A. WoS	Q4	4a	ALL=("business process management" and "regulatory risk management")	0
I original query	A. WoS	Q5	5a	ALL=("managing regulatory compliance in business processes")	0
III add 6th query	A. WoS	Q6	6a	ALL=("business process management" and "compliance")	59
II including synonym	A. WoS	Q1	1b	ALL=("BPM" and "regulatory compliance")	2
II including synonym	A. WoS	Q2	2b	ALL=("BPM" and "regulatory compliance" and "systematic literature review")	0
II including synonym	A. WoS	Q3	3b	ALL=("BPM" and "compliance risk management")	1
II including synonym	A. WoS	Q4	4b	ALL=("BPM" and "regulatory risk management")	0
III add 6th query	A. WoS	Q6	6b	ALL=("BPM" and "compliance")	149
I original query	B. SD	Q1	1a	"business process management" + "regulatory compliance"	112
I original query	B. SD	Q2	2a	"business process management" + "regulatory compliance" + "systematic literature review"	18
I original query	B. SD	Q3	3a	"business process management" + "compliance risk management"	3
I original query	B. SD	Q4	4a	"business process management" + "regulatory risk management"	0
I original query	B. SD	Q5	5a	"managing regulatory compliance in business processes"	0
III add 6th query	B. SD	Q6	6a	"business process management" + "compliance"	929
II including synonym	B. SD	Q1	1b	"BPM" + "regulatory compliance"	83
II including synonym	B. SD	Q2	2b	"BPM" + "regulatory compliance" + "systematic literature review"	4
II including synonym	B. SD	Q3	3b	"BPM" + "compliance risk management"	1
II including synonym	B. SD	Q4	4b	"BPM" + "regulatory risk management"	0
II including synonym	B. SD	Q6	6b	"BPM" + "compliance"	9081
I original query	C. SSRN	Q1	1a	"business process management" and "regulatory compliance"	0
I original query	C. SSRN	Q2	2a	"business process management" and "regulatory compliance" and "systematic literature review"	0
I original query	C. SSRN	Q3	3a	"business process management" and "compliance risk management"	0
I original query	C. SSRN	Q4	4a	"business process management" and "regulatory risk management"	0
I original query	C. SSRN	Q5	5a	"managing regulatory compliance in business processes"	0
III add 6th query	C. SSRN	Q6	6a	"business process management" and "compliance"	2
II including synonym	C. SSRN	Q1	1b	"BPM" and "regulatory compliance"	0
II including synonym	C. SSRN	Q2	2b	"BPM" and "regulatory compliance" and "systematic literature review"	0
II including synonym	C. SSRN	Q3	3b	"BPM" and "compliance risk management"	0
II including synonym	C. SSRN	Q4	4b	"BPM" and "regulatory risk management"	0
II including synonym	C. SSRN	Q6	6b	"BPM" and "compliance"	2
I original query	D. ArXiv	Q1	1a	"business process management" and "regulatory compliance"	1
I original query	D. ArXiv	Q2	2a	"business process management" and "regulatory compliance" and "systematic literature review"	0
I original query	D. ArXiv	Q3	3a	"business process management" and "compliance risk management"	0
I original query	D. ArXiv	Q4	4a	"business process management" and "regulatory risk management"	0
I original query	D. ArXiv	Q5	5a	"managing regulatory compliance in business processes"	0
III add 6th query	D. ArXiv	Q6	6a	"business process management" and "compliance"	4
I original query	D. ArXiv	Q1	1b	"BPM" and "regulatory compliance"	0
I original query	D. ArXiv	Q2	2b	"BPM" and "regulatory compliance" and "systematic literature review"	0
I original query	D. ArXiv	Q3	3b	"BPM" and "compliance risk management"	0
I original query	D. ArXiv	Q4	4b	"BPM" and "regulatory risk management"	0
III add 6th query	D. ArXiv	Q6	6b	"BPM" and "compliance"	1
I original query	E. dplp	Q1	1a	"business process management" and "regulatory compliance"	4
I original query	E. dplp	Q2	2a	"business process management" and "regulatory compliance" and "systematic literature review"	0
I original query	E. dplp	Q3	3a	"business process management" and "compliance risk management"	2
I original query	E. dplp	Q4	4a	"business process management" and "regulatory risk management"	0
I original query	E. dplp	Q5	5a	"managing regulatory compliance in business processes"	1
III add 6th query	E. dplp	Q6	6a	"business process management" and "compliance"	43
II including synonym	E. dplp	Q1	1b	"BPM" and "regulatory compliance"	3
II including synonym	E. dplp	Q2	2b	"BPM" and "regulatory compliance" and "systematic literature review"	0
II including synonym	E. dplp	Q3	3b	"BPM" and "compliance risk management"	0
II including synonym	E. dplp	Q4	4b	"BPM" and "regulatory risk management"	0
II including synonym	E. dplp	Q6	6b	"BPM" and "compliance"	45
I original query	F. Zenodo	Q1	1a	+metadata.description:("business process management") +metadata.description:("regulatory compliance")	1
I original query	F. Zenodo	Q2	2a	+metadata.description:("business process management") +metadata.description:("regulatory compliance") +metadata.d	0
I original query	F. Zenodo	Q3	3a	+metadata.description:("business process management") +metadata.description:("compliance risk management")	0
I original query	F. Zenodo	Q4	4a	+metadata.description:("business process management") +metadata.description:("regulatory risk management")	0
I original query	F. Zenodo	Q5	5a	+metadata.description:("managing regulatory compliance in business processes")	0
III add 6th query	F. Zenodo	Q6	6a	+metadata.description:("bpm") +metadata.description:("compliance")	7
II including synonym	F. Zenodo	Q1	1b	+metadata.description:("bpm") +metadata.description:("regulatory compliance")	1
II including synonym	F. Zenodo	Q2	2b	+metadata.description:("bpm") +metadata.description:("regulatory compliance") +metadata.description:("systematic lit	0
II including synonym	F. Zenodo	Q3	3b	+metadata.description:("bpm") +metadata.description:("compliance risk management")	0
II including synonym	F. Zenodo	Q4	4b	+metadata.description:("bpm") +metadata.description:("regulatory risk management")	0
II including synonym	F. Zenodo	Q6	6b	+metadata.description:("bpm") +metadata.description:("compliance")	7

Figure 2: Results Table

	Prelim searches (25/11/2021)	
	site: scholar.google.com	
	Source: journal	
	Any time	Any type
	patents:	☑
	citations:	☑
	search terms	hits
1	"business process management"	32.000
2	"business process management" and "systematic literature review"	2.250
3	blockchains and "business process management"	757
4	inter-organisational and "business process management"	1.070
5	"business process management" and "systematic literature review" and compliance	710
6	"business process management" and "regulatory compliance"	426
7	"business process management" and "regulatory compliance" and "systematic literature review"	60
8	"industry specific" and "standard business processes"	8
9	"business process management" and "regulatory compliance" and "systematic literature review" and GRC	1
10	"business process management for regulatory compliance"	0
11	"risk management"	497.000
12	"risk management" and compliance	70.800
13	"risk management" and "business process"	11.000
14	"risk management" and "regulatory compliance"	4.590
15	"compliance risk management"	523
16	"regulatory compliance costs"	484
17	"legal risk management" and board	193
18	"regulatory risk management"	179
19	"risk management in business"	195
20	"managing regulatory compliance in business processes"	9
21	"measure regulatory compliance"	5
22	"compliance disclosure requirements"	7
23	"managing risk and regulatory compliance"	2
24	"non financial information"	6.360
25	"non financial information" and analysis	6.060
26	"non financial information" and disclosure	4.580
27	"non financial information" and "risk management"	1.550
28	"disclosure of non financial information"	487
29	"reporting of non financial information"	107
30	"reporting of non financial information" and legal	77
31	"analysis of non financial information"	9
32	"non financial information" and GRC	10
33	"analysis of non financial information" and compliance	6
34	"business process management" and "risk management" and "non financial information"	33

Figure 3: Google Scholar Search

Definitions

Two seemingly related concepts are BPM (Business Process Management) and WMS (Workflow Management System). The Workflow Management Coalition (WfMC) presents definitions of both concepts:

"**Business process management** (BPM) is a discipline involving any combination of modeling, automation, execution, control, measurement and optimization of business activity flows, in support of enterprise goals, spanning systems, employees, customers and partners within and beyond the enterprise boundaries."

"**Workflow management system** (WMS) is a software application that is designed to help organizations automate and manage their business processes. A WMS allows an organization to define and implement a workflow – a series of tasks, steps, and decisions – that need to be followed to complete a specific process. The system can then be used to track the progress of the workflow, manage the flow of information and documents, and ensure that tasks are completed in the correct order and by the right people.""
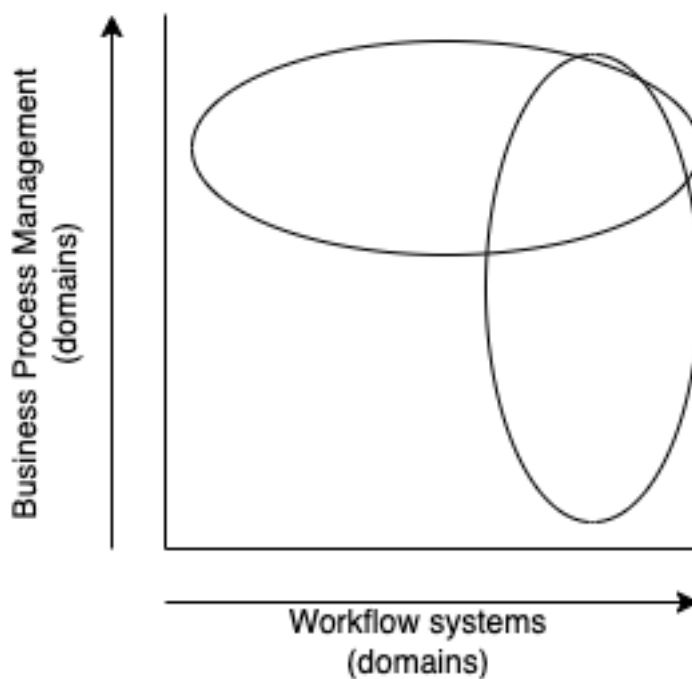

Figure 4: Workflow systems

Databases used