XJTLU MITS Printing Data Dashboard Construction and Procurement Decision Support Practice

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1. Background

The MITS Department at XJTLU is responsible for the management of campus printing devices. Prior to the procurement of a new printing system, it was necessary to obtain an accurate and comprehensive understanding of the current utilization of printing resources.

Previously, printing data were scattered across multiple systems and sources. Printing costs and page volumes had to be manually aggregated across multiple dimensions, such as colleges and administrative departments. This process was time-consuming, error-prone, and incapable of providing efficient and reliable data support for procurement decision-making. As a result, there was a clear need to establish a centralized printing data dashboard.

2. Solutions

2.1 Core Data Integration

With printing logs as the primary data source, the system integrates data within a specified time period (with flexible time-range filtering), including:

Basic printing information (printing time, number of pages, and printing cost);

Associated information (affiliated college, department, staff name, printer ID, and printer location).

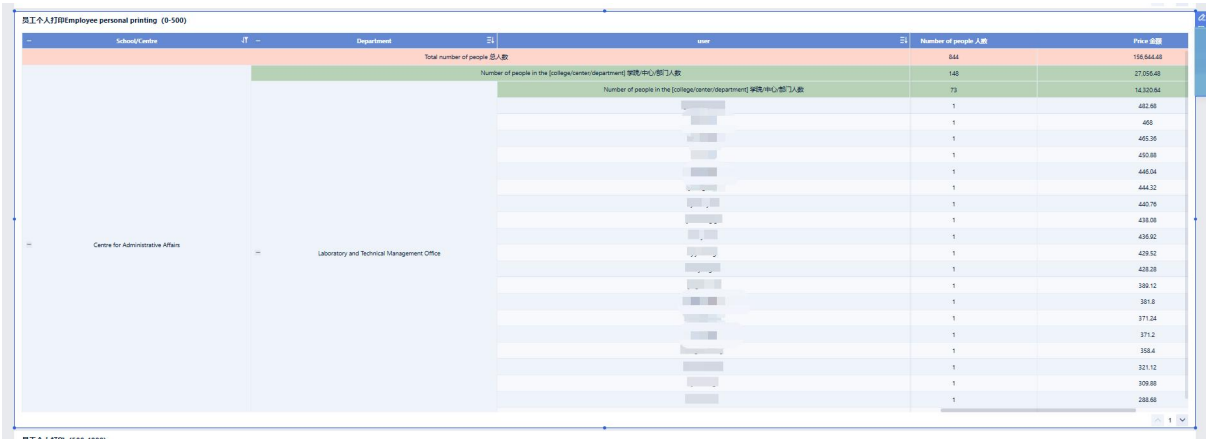
2.2 Core Dashboard Functions

Multi-dimensional statistical visualization: Printing costs and page volumes are aggregated and displayed by college, department, individual staff member, and printer, and presented in the form of bar charts and tables;

Data export: Statistical results can be exported to Excel with a single click;

Time-range filtering: Users can flexibly select statistical time periods to support different procurement analysis scenarios.

3. Outcomes and Benefits



员工个人打印employee personal printing（0-500）

School/Centre	Department	user	Number of people 人数	Price 金额
Total number of people 总人数			844	156,644.48
	Number of people in the [college/center/department] 学院/中心/部门人数		148	27,056.48
		Number of people in the [college/center/department] 学院/中心/部门人数	73	14,320.64
			1	482.68
			1	468
			1	465.36
			1	450.88
			1	446.04
			1	444.32
			1	440.76
			1	438.08
Centre for Administrative Affairs	Laboratory and Technical Management Office		1	436.92
			1	429.52
			1	428.28
			1	389.12
			1	381.8
			1	371.24
			1	371.2
			1	358.4
			1	321.12
			1	309.88
			1	288.68

Figure 1.Printing Dashboard: Employee Personal Printing Cost Summary (Range: 0-500 CNY)

Number of pages printed by the printer 打印机打印张数

序号	Printer name 打印机名称	Printer location 打印机位置	Print Pages 打印页数
		C81053	710,162
1	B3-C810F	B3 C810F	233,004
		B3 C81053	9,760
2	S6-B5448	B5448	674,087
3	B3-C81112_02	C81112	598,751
4	B1-F8524	F8524	519,551
5	S5-IR820	IR820	498,075
6	B1-F8426	F8426	489,619
7	B1-F8544A_04	B1 F8544A	460,795
8	S6-B5359	B5359	419,219
9	B1-F8544A_01	B1 F8544A	417,425
10	S6-B5248	B5248	414,054
11	B4-P516	P516	382,604
12	B1-F8484	F8484	376,235
13	S3-E5318	E5318	351,092
14	B1-F8544A_05	B1 F8544A	333,690
15	B1-F8124	F8124	329,391
16	B3-C8833	C8833	321,172
17	B3-C81112_01	C81112	262,570
		B3-C81112	37,626
总计	总计		17,074,441

Figure 2.Printing Dashboard: Summary of pages printed by the printer

Printing data analysis efficiency increased by approximately 95%, replacing manual calculations and significantly reducing errors;

Clear visualization of printing consumption across multiple dimensions provides precise evidence for printer model selection and quantity configuration;

Data can be directly imported into Word documents to form procurement analysis reports, thereby simplifying and accelerating the

decision-making process.

4. Next Steps

1. Introduce printing cost trend analysis functionality;

2. Integrate device fault and maintenance data to optimize procurement priority assessment;

3. Grant department-level data query access to enhance management collaboration.