Usage Report of XJTLU Library Digital Resources

February 2019

CONTENT

INTRODUCTION

Usage statistics are influential in deciding if a resource should be reviewed and flagged for possible cancellation, if more training is necessary or if the number of concurrent users should be increased or decreased. This report is produced with the intention of presenting the landscape of XJTLU Digital Library and its usage within 2018 and the previous year.

Most of the data in this report is provided according to *Counting Online Usage of Networked Electronic Resources (COUNTER)* standards, the internationally accepted initiative to facilitate the recording and reporting of online usage statistics. A small quantity of data provided by vendors is not COUNTER compliant since the vendors are smaller or primarily focus on the corporate market. The usages of free resources which are supported by other libraries/organizations are not included from the usage statistics.

XJTLU DIGITAL RESOURCES PROFILE

Digital resources in this report are divided into six types, including full-text resources, bibliographic resources, e-books resources, statistical resources, reference resources and research tools. Detailed resource list is shown in Table 1.

Type	Number	Budget Source	Titles
Full-text Resources	39	XJTLU Budget	*ProQuest (ABI/INFORM, Business Market Research Collection), EBSCO (ASC, BSC, AAC, HIC, LRC, Communication Source, Film & Television Literature Index with Full Text, PsycARTICLES, Environment Complete, GreenFILE, Regional Business News), ACM, ACI, ACS, ASCE, ASME, BSOL, Cambridge Journals Online, CIS, Emerald Journals, IEL, ICE, JSTOR, Nature, Nature Neuroscience, NPG Journals, Oxford Journals, Project MUSE, PQDT, RSC Journals, Sage Journals, Science, Science Direct, SpringerLink Journals, T&F Journals (SSH), Wanfang Data, Wiley Online Journals (S&T)*
	17	Supported by NSTL or other libraries	*ACSESS Journals, American Society of Health-System Pharmacists Journal, American Society of Plant Biologists Journals, ASABE, CIF Journal, CSP Online Journals, CNKI Journals, Cold Spring Harbor Laboratory Online Journal, CSIRO, Ecological Society of America (ESA) Journals, Economy Prediction System, GeoScienceWorld Journals, IGI Global Journals & Dictionary, INFORM Online Journals, Mary Ann Liebert Inc. Journals, NSTL Archive Database Service, The Royal Society Online Journals*
E-book Resources	19	XJTLU Budget	*BKS Digital Library, Chaoxing eBooks, De Gruyter eBooks, Emerald eBook Series Database, European Mathematical Society eBooks, Handbook in Economics, Harvard University eBooks, ICE Virtual Library (Institution of Civil Engineers), IGI Global eBooks, IET eBooks, McGraw-Hill ebook Library, Method in Enzymology, RSC eBooks, SpringerLink E-books, T&F eBooks, UReader, Wiley Online Books, World Scientific eBooks, Oxford Scholarship Online*

Bibliographic Resources	13	XJTLU Budget	Avery Index, CSSCI, EBSCO (American Doctoral Dissertations, ERIC, European Views of the America, LISTA), Ei Compendex, JCR, MathSciNet, MEDLINE, MLA, Scopus, Web of Science Core Collection (SCIE, SSCI, A & HCI)
Statistical Resources	26	XJTLU Budget	CSMAR, CSYD, CEIC, DataStream, DRCnet, Thomson One, UN Comtrade , Wind, WRDS, Audit Analytics, BoardEx, Compustat-IQ(North American Database, North American Histoexrical Package, Global Package, QU Preliminary History, Unrestated Quarterly, Capital Structure, Credit Ratings, Execucomp), OptionMetrics, ORIBS Bank Focus, Raven Pack New Analytics, CRSP (FA, MF, CCM, IHF)
Reference Resources	11	XJTLU Budget	Anatomedia,, Chaoxing Video, Choice Review Online, EBOL, Factiva, Macmillan Dictionary and Thesaurus, New Oriental Multi-media Learning Database, Oxford English Dictionary Online, Reaxys, Sage Research Methods, SciFinder
Research Tools	7	XJTLU Budget	Duxiu Academic Search (Metalink), EndNote, RefWorks, LibGuides, LibAnswers, LibCal, EBSCO Discovery Service
TOTAL	**132**		

Table 1. XJTLU Digital Resources Master List (Updated on Feb 2019)

USAGE STATISTICS AND ANALYSIS

Key performance indicators apply to measure the usage of digital resources vary greatly according to resource types. It is often straightforward to find out the heavily used and less used resources through comparing the usage statistics.

The complete usage statistics from January 2017 to December 2018 are presented below by types of digital resources.

I. Full-text Resources

Full-text resources are the primary reference for research and academic writing. XJTLU Library provides access to most of the full-text resources that are prevalent among other universities and academic institutions. To make full use of library budget, the Library evaluates the requests from academic departments including their core digital resources and priorities accordingly. Except for database subscription, promotion and maintenance, the Library also analyses the usage statistics and cost-effectiveness of all resources.

As to full-text databases, 'Full-text Access' is the key performance indicator which combines both full-text downloads and HTML access. Table 2 shows the number of 'Full-text Access' in two consecutive years 2017 & 2018, as well as the variance between the two years. It is obvious that most multi-disciplinary databases show good usage performance in 2018 and slight increase of usage compared with 2017, such as *Science Direct* (174,210), *Wanfang Data* (59,095), *EBSCO ASC* (49,877), *JSTOR*

(35,981), *Taylor & Francis SSH* (20,765), etc. Those databases are most used by students and researchers in the university. Meanwhile, some databases that focus on a couple of subjects also display high usage, like *EBSCO BSC* (73,387) for IBSS, *IEL* (42,636) for CSSE & EEE. It verifies that those resources are the core digital resources for the subjects. Resources like *Science* (2,457) and *Nature* (4,509), referred to a specific title, achieved dramatic increase of usage in 2018, even though the number of their full-text access is not comparable to the Top 3.

As the core digital resources for science and engineering, *ICE, BSOL, and ASME* provide access to thousands of online content that are good resources for Final Year Projects as well as postgraduate studies. It apparently hasn't met with success as the usage shows low usage in two consecutive years. Meanwhile, *Business Market Research Collection* enables users to conduct company, industry and economic market research with information from two core business resources: Hoover's Company Profiles and OxResearch. However, it is turned out that users were not make full use of the databases with low full-text downloads (545) in 2018. It concludes that both the Library and the departments shall cooperate to figure out a promotion plan which targets on improving the awareness of resources among new staff and students as well as facilitating database trainings. On the other hand, the Library analyses the cost-effectiveness of each database before the annual budget planning. The resources with extremely low usage statistics shall be pending on the budget plan.

In 2018, an abnormal increase occurs in the usage of *ABI/INFORM* (416,035 in 2018 compared with 81,724 in 2017). It was investigated that there was fraudulent access to the database from XJTLU end users. Abnormal activities will result in the block of university's access to e-resources as well as damage the university's reputation among publishers. In order to avoid the re-occurrence of any violations, XJTLU users shall obey to the fair use of e-resources at XJTLU Library.

SN	Title	Subject Coverage	2018		2017		Variance 2018 vs2017 (Full-text Access)	Remarks
			Full-text Access	Unit Cost per Article (/RMB)	Full-text Access	Unit Cost per Article (/RMB)		
1	ProQuest ABI/INFORM	IBSS	416,035	0.25	81,724	1.36	409.1%	
	ProQuest ABI/INFORM (excluding Financial Times)		42,788	2.43				Fraudulent access occurred in Financial Times is excluded.
2	Science Direct	Multi-disciplines	174,210	7.27	139,673	8.35	24.7%	
3	EBSCO BSC (Business Source Complete)	IBSS	73,387	0.59	67,740	0.42	8.3%	
4	Wanfang Data (万方数据)	Multi-disciplines	59,095	2.15	56,385	2.25	4.8%	

5	EBSCO ASC (Academic Search Complete)	Multi-disciplines	49,877	0.87	39,977	0.72	24.8%	
6	IEL (IEEE/IET Electronic Library)	CSSE,EEE	42,636	8.59	36,830	10.09	15.8%	
7	JSTOR	Multi-disciplines	35,981	1.64	34,717	1.56	3.6%	
8	Emerald Journals	Multi-disciplines	28,452	4.56	22,173	3.97	28.3%	
9	Taylor & Francis (Social Science & Humanities(SSH))	Multi-disciplines	20,765	25.95	14,911	17.59	39.3%	
10	Wiley Online Journals (Science & Technology)	Multi-disciplines	15,216	24.13	10,885	32.96	39.8%	
11	Sage Journals	Multi-disciplines	14,510	7.96	11,159	9.27	30.0%	Data from Sage Backfiles is included
12	Chao Xing Journals	Multi-disciplines	12,649	3.95	-	-	-	
14	Oxford Journals	Multi-disciplines	7,180	13.22	6,061	15.52	18.5%	
15	EBSCO LRC (Literacy Reference Center)	ENG,LC	6,177	3.94	6,197	3.82	-0.3%	
16	ACM (Association for Computer Machinery)	CSSE	6,097	6.55	3,227	12.41	88.9%	
17	EBSCO HIC (Humanities International Complete)	ENG,LC	5,587	2.90	7,332	2.15	-23.8%	
18	EBSCO Communication Source	ENG,LC,SoFTA	5,341	4.77	-	-	-	
13	Nature	Multi-disciplines	4,509	5.17	2,525	8.13	78.6%	
20	Cambridge Journals	Multi-disciplines	3,449	37.09	3,019	25.91	14.2%	
21	EBSCO AAC (Art & Architecture Complete)	ARCH,UPD	3,025	8.23	3,301	5.07	-8.4%	

22	Project MUSE	Multi-disciplines	2,775	16.67	2,703	16.10	2.7%	
23	Science	Multi-disciplines	2,457	9.94	1,700	14.31	44.5%	
24	RSC (Royal Society of Chemistry) Journals	CHEM	2,330	20.87	2,036	22.45	14.4%	
25	ASCE (American Society of Civil Engineering)	CEN,ARCH	2,059	24.26	1,477	34.64	39.4%	
26	PQDT (ProQuest Dissertations & Theses)	Multi-disciplines	1,444	86.20	983	129.64	46.9%	
27	EBSCO Film & Television Literature Index with Full Text	SoFTA,ENG	1,217	14.95	-	-	-	
28	EBSCO PsycARTICLES	DPH	1,138	79.93	-	-	-	
29	BSOL（British Standards Online）	CEN	778	60.01	957	50.09	-18.7%	
30	ProQuest Business Market Research Collection	IBSS	545	-	-	-	-	
31	ICE (Institution of Civil Engineers)	CEN	422	95.90	576	73.47	-26.7%	
32	ASME (American Society of Mechanical Engineers) Journals	IND	159	185.79	92	299.75	72.8%	
33	Nature Neuroscience	BS	127	154.61	96	179.99	32.3%	
19	SpringerLink Journals	Multi-disciplines	-	-	-	-	-	Subscription started from Jan 2019
34	CIS (Construction Information Service)	CEN	-	-	401	352.67	-	
35	ACI (American Concrete Institute)	CEN,ARCH	-	-	-	-	-	
36	ACS (American Chemistry Society) Journals	CHEM	-	-	-	-	-	Subscription started from Jan 2019

37	EBSCO Environment Complete	ENV	-	-	-	-	-	Subscription started from Sept 2018
	Total		999,629		558,857		
	Total		626,382				Fraudulent access occurred in ProQuest ABI/INFORM is excluded.

Table 2. 2017-2018 XJTLU Full-text Resources Usage Statistics
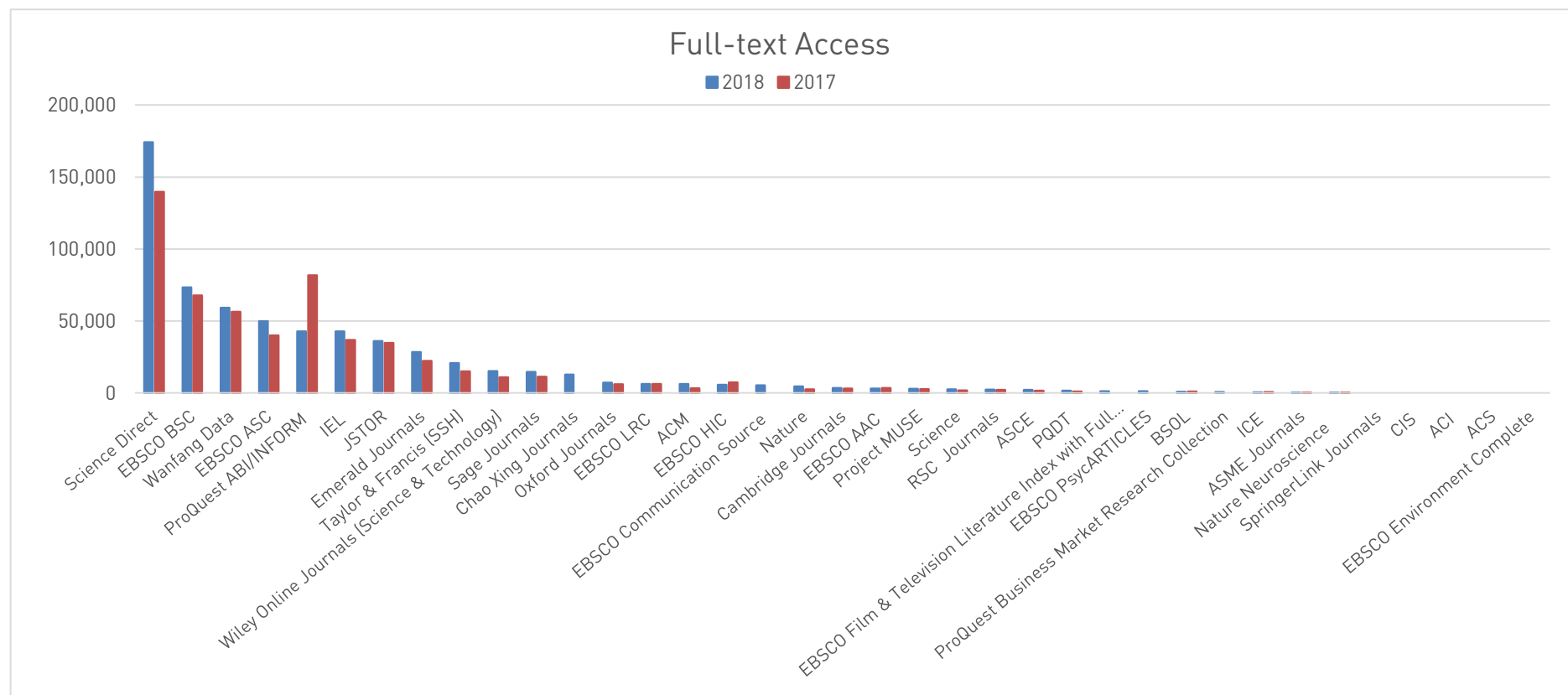

Figure 1. A Comparison of XJTLU Full-text Resources Usage Statistics in 2017 and 2018 (excluding fraudulent access)

II. E-book Resources

E-book resources are accessible from several eBook platforms since purchase start dates. By 2018, the Library has permanent access to 19 eBook platforms with 703,055 titles in total. Title request is regarded as an indicator to reveal usage performance of this type of resources. The total title requests of e-book resources since purchase start dates are calculated in Table 3.

SN	Collection	Subject Coverage	Purchase Starts	Total Titles	Total Title Requests	Remark
1	BKS Digital Library	Multi-disciplines	2015	6,178	-	Mirror site
2	Chaoxing eBooks	Multi-disciplines	2012	499,045	13,179	
3	De Gruyter eBooks	Multi-disciplines	2016	10,099	2,051	
4	Emerald eBook Series Database	IBSS	2014	1,220	15,650	Usage from 2017 to 2018
5	European Mathematical Society eBooks	MATH	2015	163	-	
6	Handbook in Economics	IBSS	2012	91	1,598	
7	Harvard University eBooks	Multi-disciplines	2017	3,653	-	
8	ICE Virtual Library (Institution of Civil Engineers)	CEN	2018	1,522	-	
9	IGI Global eBooks	Multi-disciplines	2016	65	-	
10	IET eBooks	Multi-disciplines	2012	311	1,006	Usage from 2013 to 2018
11	McGraw-Hill ebook Library	IBSS	2014	778	-	
12	Method in Enzymology	CHEM	2012	520	709	
13	RSC eBooks	CHEM	2012	1,020	522	
14	SpringerLink E-books	Multi-disciplines	2015	27,470	73,417	
15	T&F eBooks	Multi-disciplines	2014	512	403	
16	UReader	Multi-disciplines	2012	145,218	-	Mirror site
17	Wiley Online Books	Multi-disciplines	2013	2,975	5,754	
18	World Scientific eBooks	Multi-disciplines	2017	1,270	271	
19	Oxford Scholarship Online	Multi-disciplines	2018	945	45	
	Total			703,055		

Table 3. XJTLU E-books Resources Usage Statistics

III. Bibliographic Resources

Bibliographic resources have several bibliographic databases, indexes, as well as journal evaluation tool (JCR). Indicators include number of searches, result clicks and record views are used to evaluate the usage of those databases.

Web of Science (WoS) Core Collection, Ei Compendex (Ei) and Scopus, three major bibliographic databases in academic field, show a stable increasing usage in 2018. There is a significant decrease of sessions from MEDLINE (WoS) in 2018, since the Library provided extra platforms approaching to MEDLINE in the second half of 2018, like EBSCO. Besides, the other bibliographic resources such as Avery Index, MLA and MathSciNet doesn't widely apply to multi-disciplines and show slight fall in usage compared with 2017.

Title	2018			2017		
	Searches	Result Clicks	Record Views	Searches	Result Clicks	Record Views
WoS (Web of Science) Core Collection (SCIE, SSCI, AHCI)	10,744	5,220	3,189	9,377	3,229	2,091
Scopus	5,357	7,007	7,829	3,924	3,065	3,761
Ei (Ei Compendex)	823	497	350	701	421	288
JCR (Journal Citation Reports)	36,377	-	-	43,260	-	-
Avery Index to Architectural Periodicals	495,729	2,541	1,250	539,255	2,530	1,324
MLA International Bibliography	496,088	3,567	1,912	539,473	3,532	1,907
MEDLINE (WoS)	176	107	69	10,661	458	393
MathSciNet	12,247	6,812	7,654	12,402	6,961	7,978
SAGE Research Method	248	91	824	225	220	114

Table 4. 2017-2018 XJTLU Bibliographic Resources Usage Statistics

IV. Statistical Resources

The Library's statistical resources focus more on financial data and cover a few spatial data as well. More complicate indicators are often used when evaluating the usage of these resources.

According to Table 5, the usage of most statistical resources keep good performance and do not show noteworthy usage variations in 2018 except CSMAR. CSMAR has limited usage in 2018, though it shows a huge document downloads rise by nearly 100% from 2017 to 2018. Similar to the bibliograpgic databases, the statistical databases are completely different from the full-text ones. Users have to be equipped with great information literacy to make full use of the resources.

Title	Subject Coverage	Indicator	2018 Usage	2017 Usage	Variance 2018 vs 2017
ORBIS Bank Focus (Bankscope)	IBSS	Fictive Credits[1]	44,186,131	43,526,817	1.5%
CEIC	IBSS	Document hits	201,039	200,089	0.5%
DRCNet (国研网)	IBSS	Document hits	250,603	254,933	-1.7%
CSMAR (China Stock & Accounting Research)	IBSS	Document downloads	5,586	2,669	109.3%
China Data Online	IBSS	Document hits	-	270,933	-

Table 5. 2017-2018 XJTLU Statistical Resources Usage Statistics

V. Financial Data Project

The databases in the project include the digital platform Wharton Research Data Services (WRDS) and other 24 third-party databases accessible via WRDS. WRDS is the award-winning research platform and business intelligence tool from The Wharton School of the University of Pennsylvania. WRDS hosts the major numerical data set in business filed and provides the users with one location to access multiple business research databases. Some statistics databases that university library already subscribed, like CSMAR, also can be accessed via WRDS.

---

[1] The Fictive Credit including display-report, display-list, display-statistical analysis, display-aggregation, display-segmentation, export-report and export-list.

The top three frequently accessed databases within the subscription period are:

1) Wharton Research Data Services with 7,087 times accessed

2) CSMAR with 1,967 times accessed

3) Compustat North America - daily updates (current + historical data) with 866 times accessed.

For more detailed usage performance, please refer to *A Review Report on Financial Data Project*.

VI.   Reference Resources

Reference resources span a range of resources of encyclopedia, images, dictionaries, news and specific subject information. Commonly used indicators for the usage of this type of resources are views, sessions, searches, etc.

Shown in Table 6, Factiva is better used in 2018 due to a series of training workshops were well arranged and added newspaper resource introduction for target audience. Similar to a few full-text resources mentioned above in this report, the use of image resources (Grove Art Online) shows low usge in two consecutive years 2017 & 2018 and should be re-evaluated in the following year for making better budgeting decisions in future.

Title	Subject Coverage	Resource Type	Indicators	2018 Usage	2017 Usage	Variance 2018 vs 2017
Encyclopaedia Britannica Online	Multi-disciplines	Encyclopaedia	Document hits	6,110	9,260	-34.0%
Grove Art Online	ARCH	Image	Sessions	148	180	-17.8%
Reaxys	CHEM	Chemical information	Searches	2,403	2,004	19.9%
Factiva	ENG	News	Document counts	38,574	9,451	308.1%
Oxford English Dictionary	LC, ENG	Dictionary	Views	3,037	1,345	125.8%
SciFinder	CHEM	Chemical information	Searches	1,528	-	-

Table 6. 2017-2018 XJTLU Reference Resources Usage Statistics

VII. Research Tools

Research tools refer to the Library's search platforms, content management systems and digital research-smart tools. Table 7 presents the usage statistics of the tools. Indicator for different tools differs.

In 2017, these resources were consistently popular among library users. Among them, DISCOVER recorded 388,952 search sessions in 2018, with a stable usage performance in consecutive years. Another integrated searching platform Duxiu Academic Search (Metalink), which is mainly used as a document delivery system when full texts are not available in other databases, experienced a 29.2% fall in the number of document delivery requests by users in 2018. Meanwhile, according to the usage statistics, a slight decrease in LibGuides users' veiws was witnessed in 2018.

Title	Subject Coverage	Type	Indicator	2018 Usage	2017 Usage	Variance 2018 vs 2017
Discover	Multi-disciplines	EBSCO Discovery System	Sessions	388,952	338,196	15.0%
Duxiu Academic Search (Metalink)	Multi-disciplines	Library search tool, document deliver platform	Document delivery requests	45,820	64,704	-29.2%
LibGuides	Multi-disciplines	Library content management tool	Views	37,489	57,306	-34.6%

Table 7. 2017-2018 XJTLU Research Tools Usage Statistics

FINDINGS AND CONCLUSION

It can be concluded that the full-text digital resources in XJTLU are well utilized in terms of usage statistics.

- Most of the resources have shown better usage performance in 2018. It indicates that the Library's resources have received more recognition from staff and students.
- In order to avoid the re-occurrence of any violations, XJTLU users shall obey to the fair use of e-resources at XJTLU Library. Terms and conditions for using library's resources is to protect staff and students from violating the law and to help them carry out teaching, learning and researching activities under the permission of copyright owners or other representatives.

- The usage performance of core resources for specific subjects (e.g. Business Market Research Collection, ICE, BSOL, and ASME) haven't met success in 2018. Thus, both the Library and the departments shall cooperate to figure out a promotion plan which targets on improving the awareness of resources among staff and students.
- Bibliographic resources such as Web of Science and Scopus are becoming more popular. These resources are not only useful research tools for researchers but also can be utilized to evaluate the research performance of the University.
- Statistical resources in the Business discipline as well as Financial Data Project resources have shown a trend of stable usage, with the slight usage counts variance between 2017 and 2018.