

Big Data Influences HRM

- Case Study: Alco Holdings (HKEX: 0328) - Nexstgo Company Ltd

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What is Big Data?

Big data can be defined as data sets whose size or type is beyond the ability of traditional databases to capture, manage and process the data with low latency (Marr, 2016).

The six Vs of big data

Big data is a collection of data from various sources, often characterized by what's become known as the 3Vs: *volume*, *variety* and *velocity*. Over time, other Vs have been added to descriptions of big data:

VOLUME	VARIETY	VELOCITY	VERACITY	VALUE	VARIABILITY
The amount of data from myriad sources.	The types of data: structured, semi-structured, unstructured.	The speed at which big data is generated.	The degree to which big data can be trusted.	The business value of the data collected.	The ways in which the big data can be used and formatted.
					

Source: Akhtar, 2018

Alco Holdings Background

- Established in 1968, producing electronic, Audio products, i,e., Walkman, DVDs, soundbars, TVs.
- Role of OEM (Original Equipment Manufacturer) before 2016.
- Established a subsidiary company Nexstgo limited in 2016, focus on own brands, i,e., Avita personal computers, Nexstgo commercial computers.

OEM products



Own Brand products



NEXSTGO



Big Data on HRP (1)

Nexstgo, as a start-up business, HRP (Human Resources Planning) is very critical. It is continuous process to achieve optimum use of its most valuable assets— quality employees (Fahed-Sreih, 2018).

Why manufacturing in China?

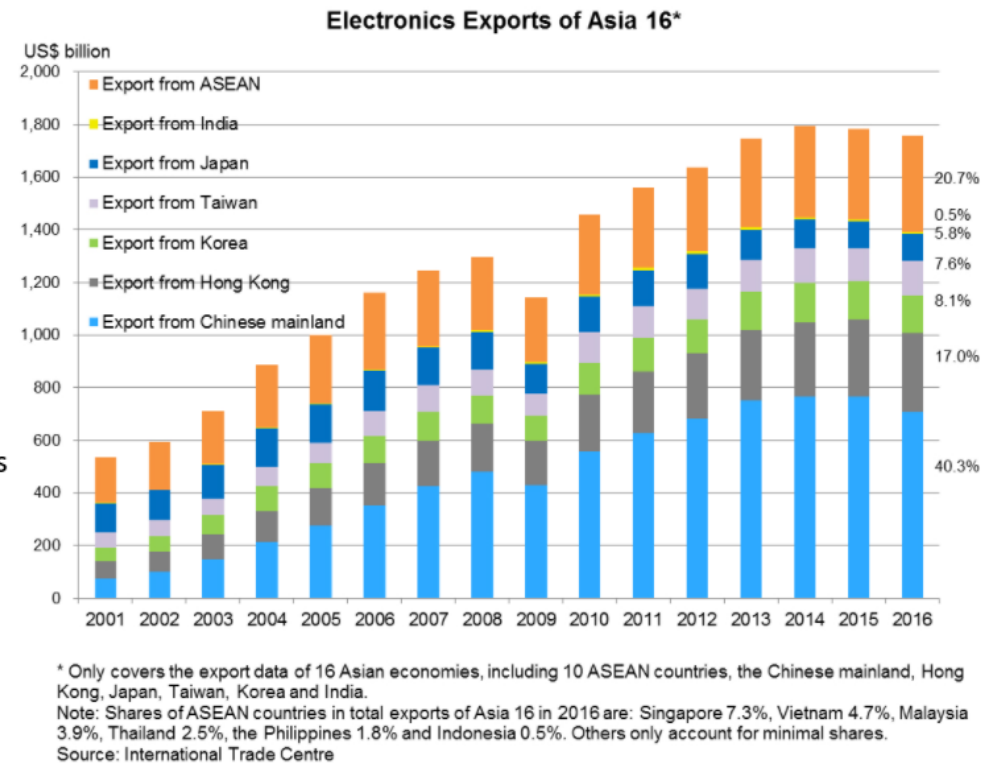
- Self-owned factory
- Experienced workers
- Supply chain expertise - your suppliers as well!

We maintain a long-term business relationship with our suppliers. China-based suppliers are preferred due to cost advantage in transportation. However, we make strict assessment of our suppliers on cost, quality and delivery performance as required to fulfil

Source: Alco Annual Report, 2020

Challenges:

- 1, How well they use the Big Data?
- 2, Is the Big Data updated?
- 3, Other considerations, i.e, tax



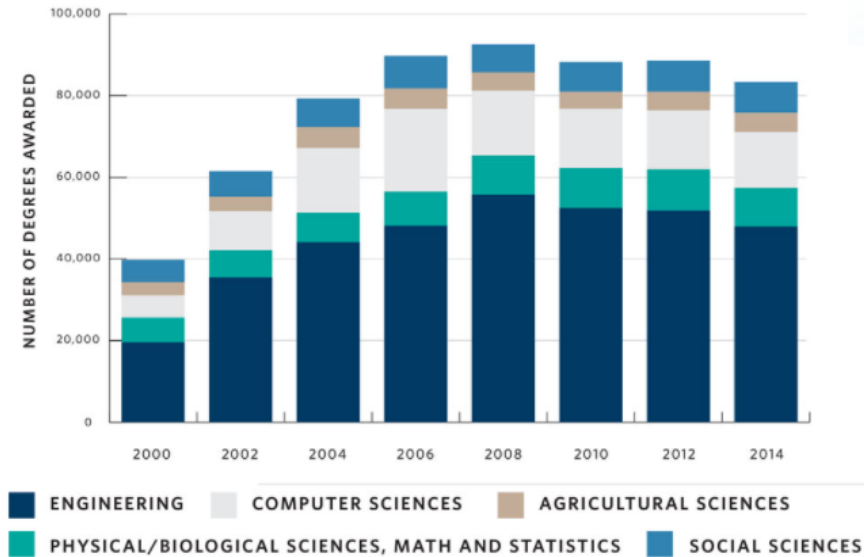
Source: HKDC, 2017

Big Data on HRP (2)

Why R&D in Taiwan?

- Expertise
- Government strategies

First University Degrees Awarded to Taiwan Students in Science and Engineering, 2000-2014



Source: Science and Engineering, 2018

Limited. Having recruited top talents to head its dedicated R&D and marketing/branding teams in Taiwan and Hong Kong respectively, Nexstgo has successfully launched Consumer Notebook PCs and Commercial Notebook PCs in Hong Kong, Macao, Taiwan, and Singapore during the year under review.

Source: Alco Annual Report, 2018

Big Data on HRP (3)

Why R&D in Taiwan?

- Salary vs other Asian countries
- Language

Challenges:

- 1, Operation Cost
- 2, Operation Efficiency
- 3, Communication Efficiency
- 4, Culture Differences



Source: Bloomberg, 2015

Big Data on Compensation & Benefits (1)

- Compensation & Benefits in HRM refer to monetary and non-monetary privileges.
- A new term “total reward” including multiple elements which motivates employees in their work (Biswas, 2015).
- Big Data on compensation & Benefits
 - Saving time for HR and HR administration department.
 - Helping employers track how or if benefits programs pay off.
 - Giving more insights into workers’ compensation claims.
 - Informing HR of what benefits employees like or want most.
 - Guiding the ways to utilize their benefit packages.
- Impacts are both quantitative and qualitative aim to achieve win-win for both employers and employees (Tonidandel, King and Cortina, 2016).

EMPLOYEES

As at 31st March 2016, the Group had approximately 1,700 (2015: 2,300) employees in Hong Kong and the PRC. Remuneration packages are generally structured by reference to market terms and individual qualifications. Salaries and wages are normally reviewed on an annual basis based on performance appraisals and other relevant factors. We also provide other benefits including medical insurance, provident fund and education subsidies to all eligible staff.

Source: Alco Annual Report, 2016

Big Data on Compensation & Benefits (2)

References to the market condition and industry benchmark are made when determining the reasonable remuneration packages of our staff. Employees' job nature and experience, results of work appraisal, financial results of the Group are also considered. Annual discretionary bonuses are given to employees to acknowledge their hard work and reward those with outstanding performance. In accordance with relevant laws, we provide other benefits to employees, such as mandatory provident fund, medical insurance and social insurance. Factory employees are provided with dormitory and meals.

Source: Alco Annual Report, 2017

Challenges:

- 1, How updated is the Big Data?
- 2, Details of the Big Data, i.e, workers are different backgrounds, therefore, company need to provide different benefits.

Big Data on Compensation & Benefits (3)

Different sources of market data:

- Government
- Recruitment agencies
- Other statistics research organizations

表 9 2020年5月至6月按職業組別劃分的每月工資水平及分布

Table 9 Monthly wage level and distribution analysed by occupational group, May – Jun 2020

Occupational group	僱員 Employees		每月工資（港元） Monthly wage (HK\$)		
	人數 Number	百分比 Percentage	第二十五個 百分位數 25 th percentile	第五十個 百分位數 50 th percentile	第七十五個 百分位數 75 th percentile
	('000)	(%)			
All employees					
Elementary occupations	425.4	15.1	10,000	13,000	16,200
Service and sales workers	429.1	15.2	10,500	13,700	18,200
Craft and related workers, plant and machine operators and assemblers	298.3	10.6	16,300	21,300	28,100
Clerical support workers	431.4	15.3	12,500	15,100	19,500
Managers and administrators, professionals and associate professionals	1 232.9	43.8	18,500	28,400	42,800
All occupational groups above	2 817.1	100.0	13,200	18,400	28,800
Full-time employees					
Elementary occupations	361.0	14.3	11,300	13,700	16,800
Service and sales workers	340.7	13.5	12,500	14,700	19,000
Craft and related workers, plant and machine operators and assemblers	267.7	10.6	17,400	22,000	28,700
Clerical support workers	387.0	15.3	13,000	15,900	20,000
Managers and administrators, professionals and associate professionals	1 169.3	46.3	19,000	28,700	43,500
All occupational groups above	2 525.8	100.0	14,200	19,300	29,900

Human Resources, Administration & Business
Support Salary Index (HKD)

Job Title	Entry	Senior	Veteran
HR Director	\$47,500	\$65,000	\$100,000
Human Resources Business			
Partner / HR Manager	\$40,000	\$50,000	\$60,000
Talent Acquisition / Recruitment	\$22,500	\$30,000	\$42,500
Compensation & Benefits / Payroll	\$20,000	\$32,500	\$45,000
Learning & Development / Training	\$25,000	\$35,000	\$50,000
HR Executive	\$20,000	\$27,000	\$36,000
Office Manager	\$30,000	\$42,500	\$60,000
Executive Assistant	\$22,500	\$35,000	\$52,500
Personal Assistant	\$27,500	\$40,000	\$57,500
Administration	\$20,000	\$28,500	\$42,500
Secretary	\$19,000	\$28,500	\$42,500
Receptionist	\$14,000	\$20,500	\$27,500
Legal Secretary	\$25,000	\$31,500	\$40,000
Company Secretary	\$32,500	\$40,000	\$52,500
Customer Service / Call Center	\$16,500	\$20,000	\$26,000

Source: Human resources, 2021

Source: HK Government, 2021

Big Data on Training and Development

Development and Training

The Group introduces talents who suit our operating condition and development needs. Through a series of target-oriented and systematic development and training programs, we are devoted to nurture their growth. The Group organises and subsidises various internal and external staff training to enhance their skills and knowledge, including machine operating, work safety and production environment management, industry and market knowledge, business administration and so on. In Houjie Factory, employees have to go through the 32 hours of required annual training.

We adjust our training courses based on business needs. For instance, due to change of our product mix, participation rates of training of Robotic Process Automation ("RPA") and laptop project-related training increased during the Reporting Period,

Source: Alco Annual Report, 2017

Challenges:

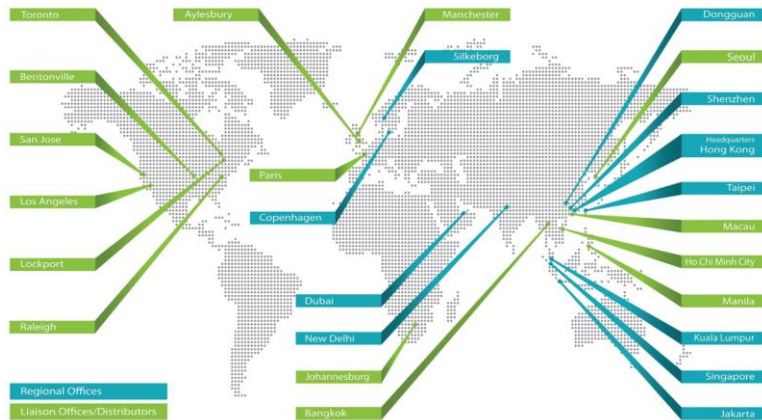
- Did the company refer to updated Big Data to arrange the training?
- Are the trainings right to keep themselves competitive?
- Are the trainings employees want and need most?

Big Data on HRM Other Aspects

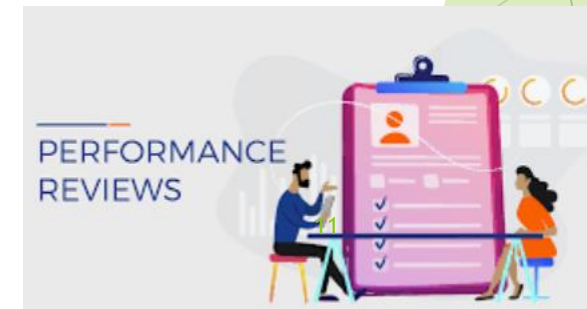
- Company Structure
 - Fully utilize current human resources
 - Avoid duplication
- Culture and Value
 - New developed countries
- Performance Review.



Alco Offices Globally



Source: Alco homepage



Recommendations and Conclusion

- How to use Big Data?
 - Big Data can help on the reason analyze.
 - However, Big Data does not guarantee good inferences.
 - Analysis the company own characteristics should be considered (Melo and Machado, 2018).
 - Combine Big Data with other external factors.
- How updated is the Big Data?
 - For some data, the company need to get updated data very frequently, i,e,. Technology talent salary, training content, etc.
- Areas to apply the Big Data in HRM.
 - Training and development.
 - Culture and value.
 - Performance review.
- Priority and implementation.
 - Cannot apply all at one time.
 - Identify the areas to apply Big Data.
 - Set appropriate sequence to avoid loss of talent (Kamoche, 2001).

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