

The Talent of Tomorrow: Staff Turnover in OHV's R&D

High staff turnover is a cause for concern in any industry and can be a costly issue. When an employee leaves a company this often necessitates a series of administrative tasks to be performed and possibly severance pay to be made to the employee. Moreover, replacing an employee typically requires advertising the vacant position and possibly using a headhunter or recruiter to find potential candidates. The hiring and training processes take up more time and expense. Naturally, having high levels of staff turnover can be a sensitive subject as it is often interpreted as an indication that a company has a poor working environment and low staff morale.

Duxes spoke to Christophe Leconte who is an expert in engineering and human resources and is based in China and he described high staff turnover as something that is very common in the R&D sector of China's off-highway vehicles (OHV) industry.

Leconte explained that foreign investment in Chinese R&D was initially cautious and somewhat limited in scope: 'they (foreign OHV manufacturers in China) started in the early 2000s by building R&D centers but they were more development than research... they basically adapted some foreign designs and foreign products to local standards'. He described these R&D teams as mainly consisting of junior researchers: 'these were mostly development engineers and able to do minor modifications or testing and the management was very often foreign management, especially in the foreign companies'. Leconte describe the growth of the R&D industry as cause of high staff turnover since young engineers were able to choose from a wide range of opportunities. Moreover, with R&D management being predominately sources from overseas, we can infer that there may have been there being a potential cultural gap or disconnect with the staff and it may have been difficult to recognize employee efforts which can lower morale in the workplace. Moreover, since these R&D teams were performing relatively simple tasks, it is also possible that they felt less engaged and fulfilled by their work.

Leconte went onto to describe how OHV manufacturers eventually proceeded to incorporate all aspects of R&D: 'the idea is now to develop 100% of the product in China for China and also for other markets'. Using Caterpillar as an example, many companies that have invested in large R&D centers started off developing products solely for the Chinese market but have since expanded their focus to the rest of the world. Indeed, we can also observe Chinese manufacturers now being increasingly in-demand in overseas markets. For example, on March 13th, a ceremony was held at Zoomlion's Quantang Industrial Park for 50 QY75V wheeled cranes ordered by Indian Reliance Industries Limited. The order, worth over 10 million dollars, is the largest overseas order placed with Zoomlion in 2015 so far.

Despite these encouraging signs, Leconte identified a serious talent shortage in China's off-highway vehicle R&D programs: 'there are around 10,000 science PHDs every year from Chinese universities but if you compare that to the US, 4 years ago it was 37,000'. Although there are many more potential engineers and scientists in China today, the number is still a fraction of that in the US. However, Leconte remains optimistic for the sector: 'there are more Chinese people returning from abroad to China with their PHD which is something you didn't see in the past'. This would suggest that young Chinese people are increasingly hopeful about their prospects in China.

Leconte describes the main challenge for R&D in China as being a chronic shortage of experienced engineers with the average Chinese engineer being in his or her early thirties which is an extremely young age for R&D: 'It's good to have young people as they have a lot of energy but you also need senior supervision in order to lead those programs'. This raises the question of whether China has the necessary number of experienced individuals to lead

R&D programs and to train the next generation of engineers. The cause of this situation is unclear since there is generally ample funding for research. Therefore, it seems likely that the cause of the problem is an inability among OHV manufacturers to retain senior talent. Senior engineers usually have the ability to secure higher wages and are more likely to have families and are therefore more likely to be concerned with career-life balance than simply gaining experience or purely financial compensation.

OHV R&D in China is disproportionately spread around the country and is mainly focused in the first tier cities such as Shanghai, Beijing and Guangzhou. Leconte explained that there is a particularly large concentration of R&D in Shanghai which is partly a result of the city's higher education standards. Many of Shanghai's prestigious universities actively pursue collaboration with OHV manufacturers which allows graduates to move easily into R&D programs after they have graduated. Leconte described this cooperation between educators and the industry as very important but described a general preference among Chinese graduates for foreign firms. However, it seems likely that Chinese graduates will eventually look more favorably on Chinese manufacturers in the future. With the support of the government in the form of an array of subsidy schemes and initiatives such as the "One Belt and One Road" strategy, Chinese OHV companies are becoming increasingly successful in bringing their products abroad. Therefore, it seems likely that their prestige among Chinese students will increase in the future. Indeed, we need only look to Japan as an example of a country who changed their image from being simply a manufacturer of quantity to one of quality.

In terms of investment in R&D, China is set to outpace Europe by 2018 and the US by 2020. However, the country's potential for innovation will never be fulfilled if it does not develop and retain the necessary talent. Based on Leconte's account, it seems that many OHV manufacturers may be out of touch with their R&D staff and unable to create a satisfactory working environment. The consequences that high staff turnover has on the outcomes of these programs and the quality of their research is unclear but should still be a cause for concern. Moreover, until China improves living conditions significantly and makes visible progress in relieving the chronic pollution of its cities, it may prove very difficult to retain the senior engineers and scientists who will lead the country's 'Made in China 2025' strategy and transform the nation into a hub of innovation. Those who would like to learn more and speak with representatives from China's OHV industry are encouraged to attend [Duxes' 8th China Off-Highway Vehicle Summit 2015](#) which is taking place on October 22-23, 2015 in the Crowne Plaza, Beijing. This event will also include a comprehensive explanation of the 13th Five Year Plan for the Chinese Construction Equipment Industry by the China Construction Machinery Association (CCMA) as well as many other presentations on the latest developments in the market and government policy as well as ample opportunities for networking.