Attraction and Image for the Australian rail industry

Full Paper

Associate Professor Michelle Wallace
Southern Cross University, Australia

Neroli Sheldon
Southern Cross University, Australia

Associate Professor Ian Lings
Queensland University of Technology, Australia

Dr Roslyn Cameron
Southern Cross University, Australia

The authors are grateful to the CRC for Rail Innovation (established and supported under the Australian Government’s Cooperative Research Centres program) for the funding of this research, Project R1.112

Attraction and Industry Image for the Rail industry

Associate Professor Michelle Wallace

Graduate College of Management
Southern Cross University
Tweed Gold Coast Campus
PO Box 42
Tweed Heads NSW 2485
Australia

michelle.wallace@scu.edu.au
61-7 55069366

Word count: 7,000 words excluding references

British Academy of Management Conference 2010
Management Research in a Changing Environment
September 14-16, Sheffield, England, 2010

Track: Human Resource Management
Attraction and Image for the Australian Rail Industry

SUMMARY

Despite the global financial downturn, the Australian rail industry is in a period of expansion. Reports indicate that the industry is not attracting sufficient entry level and mid-career engineers and skilled technicians from within the Australian labour market and is facing widespread retirements from an ageing workforce. This paper reports on a completed qualitative study that explores the perceptions of engineering students, their lecturers, careers advisors and recruitment consultants regarding rail as a brand and of careers in the rail industry. Findings are presented about career knowledge, job characteristic preferences, branding and image and indicate that rail as a brand has a dated image, that young people and their influencers have little knowledge of rail careers and that rail could better focus its image and recruitment strategies. Conclusions include suggestions for more effective attraction and image strategies for the industry and for further research.

Keywords:

Rail industry, engineers, technical staff, attraction, image, brand.
INTRODUCTION

Recent reports conducted on behalf of the Australian Rail Association (ARA), the peak body for the forty-six rail organisations in Australia, maintain that the rail industry (hereafter called ‘rail’, which includes private and public passenger and freight trains and trams) is not attracting its share of engineers, tradespersons and operational staff graduating from university and Technical and Further Education (TAFE) (ARA/Department of Education Employment and Workplace Relations (DEEWR) 2007a and b). Furthermore, the industry is facing an exceptionally large number of retirements because of its ageing workforce (ARA 2008; ARA/DEEWR 2007a and b; Kerr and Waterhouse 2008) so has a looming skills shortage, particularly in engineering and skilled technical occupations. Kerr and Waterhouse (2008) recommend rail needs to better understand the perceptions and aspirations of its potential labour pool and develop rail image/employer branding to make it better known and more attractive as an employer thus informing the development of innovative attraction strategies.

A research project, Attraction and Industry Image, funded by the Co-operative Research Centre (CRC) for Rail Innovation in 2009/2010 is addressing these issues with a mixed methods study. This paper reports findings of the completed qualitative stage that explores perceptions of rail and rail careers held by educational providers (TAFEs and universities), engineering students, careers advisors and recruitment consultants. The paper will briefly outline the current literature on skills shortages in engineering overall and in the rail industry and literature pertaining to career knowledge and development, job characteristic preferences and employer branding and image. It overviews the mixed methodology used in the overall study and the qualitative methods that inform the research reported here. The paper discusses the findings and offers suggestions for future research.

THE AUSTRALIAN RAIL INDUSTRY

Rail is a vital component of passenger and freight transport. Renewed interest in rail transport has grown primarily in response to rising fuel costs, increased road tolls, and calls by governments and community to put freight currently transported by ‘b-doubles’ (very long semi-trailers) back on rail. Most recently, there has been increased community pressure to reduce greenhouse gas emissions and provide a low-emissions solution for the transport sector.

As a result, considerable investment in rail has occurred. The 2008 Australian Railway Industry Report (ARA, 2008, p. 20) suggested that ongoing investment in the Australian rail industry is expected to grow substantially with the national capital expenditure budget totalling $15.0 billion, an increase of 277.0 percent compared with 2004/05. However, within the context of an international and national skills shortage of potential employees, rail is not attracting sufficient numbers of engineers, tradespersons and operational staff to fulfil these current and future infrastructure needs. Anecdotal evidence and small scale studies suggest that this is because, in some cases, rail careers are not seen as attractive and, in other cases, because there is a lack of awareness of the breadth of rail careers among traditional and non-traditional sources of recruitment (ARA 2008;
ARA/DEEWR, 2007a and b; Kerr and Waterhouse 2008). Furthermore, the industry has insufficient information to fully understand how engineers and skilled technicians, who are potential employees, perceive careers in rail and how these perceptions compare with careers in industries competing for the same recruits. The research reported here attempts to fill that gap.

A number of reports commissioned by the ARA highlight these issues, generally from a within-the-industry perspective. These reports indicate that rail has an aging workforce and a lack of focus with respect to bringing in significant numbers of new staff. The workforce profile is an inverse bell curve, with a high proportion of workers over 40 years of age (and, with some geographical variations, this group has a very low turnover) and a moderate proportion less than 25 years of age (ARA/DEEWR, 2007a). There is risk in the loss of tacit knowledge in rail organisations as i) the older age groups reach retirement and ii) a gap in the 26-39-year age group (where supervisory and managerial skills are built and contribute to organisational capability) emerges (ARA/DEEWR, 2007a).

Even in the face of the recent global financial crisis and downturn in demand for engineers in some countries (Engineering UK 2009/10) Australian rail needs to address current and imminent skills shortages. Its specific area of greatest need is engineers, particularly signal engineers, at graduate and experienced levels (ARA/DEEWER 2007a). However, qualified/experienced tradespersons and operational staff are also in short supply (ARA/DEEWER 2007a). There are relatively few apprentices, thus reflecting the trend that young people nationwide are aspiring towards white-collar work rather than trades. Notwithstanding this, the mining industry is seen perceived by those within rail as attracting both engineers and skilled trades in a way that rail does not. Women and youth are not attracted to rail and the relatively few new recruits from these groups are retained (AWA/DEEWR, 2007a and b).

There is worldwide and Australia specific competition for the types of talent required by the rail industry. At a global level, skilled tradespersons, engineering and maintenance technicians and engineers rank first, third and fourth in the list of ten jobs experiencing the greatest skills shortages (Manpower, 2009). In Australia graduation and migration rates are not meeting current engineering skills shortages, nor compensating for engineers retiring from the profession. Within Australia, skilled trades rank first, engineers third and technicians sixth among the ten-most-difficult positions to fill (Manpower, 2009). The May 2010 revision of the Skilled Occupations List (Department of Immigration and Citizenship, 2010) lists three project management categories and seventeen categories of engineer as in demand. These overall shortages impact on the ability of the Australian rail industry to attract and retain suitably qualified and experienced staff. The report, Inquiry into Skills Shortages in the Rail Industry: Submission to the Victorian Education and Training Committee (Engineers Australia, 2009) noted that, by the 2011 Census, a conservative estimate of approximately 70,000 engineering retirements might have occurred. Over the same period, the report estimates, only 45,000 Australian engineers will have graduated. Birrell et al (2005) have identified that numbers of students in engineering courses in Australia have been on a downward trend. Clearly, the
engineering and related skills shortage needs to be addressed through the secondary and tertiary educations sectors as well as skilled migration with long-term strategies. However, it is the short term and medium term impacts that most concern the rail industry at the moment. These are the focus of the research reported here.

Kerr and Waterhouse (2008) have recommended an analysis of rail’s attraction strategies and identification of the perceptions of rail careers held by target labour pools. They specifically have recommended i) the development of a better understanding of the lack of awareness of the industry as a preferred employer by traditional and non-traditional groups and ii) an investigation of the impact of rail’s corporate reputation on the reticence of some groups to regard rail as an employer of choice.

The focus of the research reported here is thus on knowledge of rail careers and perception of rail as a ‘brand’ by engineering students, recent graduates and their influencers. The image and branding of particular organisations will be explored in another phase of the study described in the Methodology below.

The research questions for the research reported here were:

- What is the knowledge of/attitudes to rail and competing careers of students, staff, and other potential employees within the engineering, key trades and technical networks in TAFEs, universities and recruiters?
- How is rail perceived as an employer brand within the engineering, key trades and technical networks in TAFEs, universities and recruiters?

LITERATURE REVIEW

There are a number of literatures that intersect in relation to these research questions. These include the career development literature, specifically career knowledge/perception and perception of favoured job characteristic preferences and the marketing literature, specifically relating to image and branding.

Career knowledge

Of particular interest to this project is the focus on the social influences with which individuals interact and receive knowledge about career options. The media is identified as an important socialising influence, in addition to a filter of information with regards to career development options. Educational institutions, workplaces, community groups, family and peers, especially to young adults, are also identified as being the source of values, beliefs and attitudes (Patton and McMahon 2006; Rainey et al. 2008). Collins and Stevens (2002) have found that positive word-of-mouth endorsement from family, friends or those employed in a particular industry or organisation has a high correlation with positive attitudes to and perceived attributes of the employer organisation.
Career development involves ongoing decision-making over a lifetime and is an important part of the career choice and development process (Patton and McMahon 2006). Career decision-making represents the processing of information that is constantly being received throughout the system by both conscious and unconscious processes (Patton and McMahon 2006). Some of these decisions will ultimately be influenced by the information that individuals have received about a specific organisation about which they have developed an image and assigned a value to the brand.

Research by Rainey et al. (2008) determined what motivates young people in Australia to use career development services and the characteristics of the services provided. They found that the tertiary providers of career development services are only reaching a small proportion of their overall student populations. This supports their conclusion that young people have a preference for managing their own careers and often rely on informal resources when making decisions, including help from family and friends (Rainey et al. 2008). The main services sought by young people were work and learning options, career advice, work placements, work experience and employment.

Career development information still remains primarily print-based although websites are a significant place for career development activity (Rainey et al. 2008). Websites are generally accessed on the basis of information from other sources such as newspaper articles, advertisements and job agencies and primarily used as a referral base to other websites. Rainey et al. (2008) conclude that the tendency of young people to be independent in their career decision-making could be supported by further user-friendly, easily accessible and comprehensive computer-based resources.

The role of individuals in their own career development is becoming more important as a result of workplace changes, with a career now being driven more by the individual than the organisation (Patton and McMahon, 2006). McDonald and Hite (2005) observe that a career is no longer merely a way to define ‘hierarchical progression’ and refers, instead, to three major shifts in the transition from organisation-based to boundary-less careers. These include the growing interest in work/life balance over high salaries and status, a transition from development of organisation-specific skills to acquiring transferrable skills, a change from loyalty to one’s organisation to a broader professional commitment that creates a broad-based portable network. These may be of particular applicability to the Generation Y individuals who are the focus of this study.

**Job characteristic preferences**

Chang et al. (2007) define job characteristic preferences as those attributes or factors relevant to a specific job. These may include job contents or conditions, including remuneration, career development, interpersonal relationships and welfare. When seeking employment, such preferences enable a potential recruit to make a decision regarding the attractiveness of the potential employer. As a result, a firm that is able to structure job characteristics to suit the preferences of
those recruits for which it is competing should be better able to recruit productive employees (Chang et al. 2007).

The career anchor model developed by Schein (1990) (Technical/functional competence, managerial competence, autonomy/independence, security/stability, entrepreneurial creativity, service/dedication to a cause, pure challenge and lifestyle) suggests that an individual’s life experiences will provide the person with a ‘career self-concept’ a construct that he/she labels their ‘career anchor’. This then determines an individual’s career decisions. Schein’s model allows a potential recruit some insight into his/her areas of competence, values and motives and assists in determining which careers best fit an individual’s personal traits (Chang et al. 2007). Other influences identified as important in job characteristic preferences include the transferability of skills, ability to leverage from globalising factors, participation in advances in technology, and environmental awareness (Patton and McMahon 2006).

Whether the career anchors typologies apply to the young people who are generally the focus of this research, ‘Gen Y’, is debatable. There is speculation that Gen Y people are highly mobile and fickle in employment preferences, not necessarily possessing the high work ethic/career anchors of ‘Baby Boomers’ or the work/life balance anchors of Gen X (Stanton-Smith, 2005/06). However, Josiam et al. (2009) have found Gen Y less cynical than Gen X, more positive about work and willing to work hard. Exploring young people’s career knowledge and values/preferences is a focus of our research

Branding and Image

Branding is the ‘Entire process involved in creating a unique name and image for a product (good or service) in the consumers’ mind, through advertising campaigns with a consistent theme’ (Business Dictionary, 2010). Branding is thus something an organisation or industry has control over. ‘Customer-based brand equity involves the beliefs held by individual consumers about a product’s, or service’s brand (perception of the name or logo)’ (Collins and Stevens, 2002, p. 1122). Image relates to the perceptions of individuals of a business or industry when they hear its name (Business Dictionary, 2010) and can be influenced by branding activities and other consumer experiences of an organisation. An organisation has only some control over the image potential customers may have.

To extrapolate these concepts to attraction and recruitment strategies, potential recruits’ belief that an employer will satisfy his/her needs represents the value of the employer’s brand in the recruitment market. Potential recruits rely on employer branding to assist their decision making (Collins and Stevens, 2002) and those who perceive an employer to have high employer brand value perceive that working for the employer more attractive, or at least less risky (Berthon et al., 2005). The value that potential recruits attribute to an employer’s brand thus depends on their evaluation of the employer. These evaluations are, in turn, dependent on potential recruits’ awareness of the employer brand, the associations that they have with it, and their perceptions of the brand developed through marketing, personal experience or word of mouth.
In accord with Erdem and Swait (1998), the value that potential recruits gain from an employer’s brand is determined by the information that they receive about the employer. This information is characterised by its clarity, consistency and credibility. Employer brand clarity refers to the absence of ambiguity in the information about the employer that is conveyed to potential recruits. Employer brand consistency requires that all sources of information reinforce the employer’s image, and that this image remains consistent over time. Employer brand credibility underlies recruits’ confidence in the employer’s claims to be able and willing to deliver the employment experience that is promised. For instance an organisation may brand itself as offering highly customer focussed service; this can be undermined by a particular customers personal experience of poor service.

Since potential recruits are likely to have some experiences of, and consequently information about, rail in roles other than as employees or recruits (such as commuting, being members of local community, etc.), the clarity and consistency of information that they receive, from their experience as customers, from the media, from company generated brochures and from friends, colleagues and teachers is paramount (Fernández-Barcala and González-Díaz 2006). Inconsistencies between brand experiences and messages received from different sources increase potential recruits’ perceptions of the risk that promises about employment benefits will not be fulfilled, thereby making rail less attractive to potential recruits.

The facets of an employer’s image that recruits consider in their decisions to seek employment can be categorised as functional, experiential or symbolic (Lievens et al., 2007). Recruits evaluate the value (benefit or costs) of these functional, experiential or symbolic aspects of working for an employer and use this value to form an opinion about how attractive an employer is. Functional value represents intrinsic advantages of consumption. In the employment context, these represent basic motives such as a good salary, advancement opportunities, and job security. Experiential value relates to what it feels like to work for an employer and may be represented by the employment experience including social/team activities, job diversity, work environment and travel opportunities (Lievens et al., 2007). Symbolic value represents the more extrinsic advantages of working for an organisation and satisfying a recruit’s need for social approval, personal expression and self-esteem.

Other research in this area provides alternative categories of attributes of employer image. Berthon et al. (2005) identify five dimensions of employer image. Development value is based on potential recruits’ perceptions that an employer provides recognition, self-worth and confidence, career-enhancing experiences and a springboard to future employment. Social value is based on perceptions that an employer provides a working environment that is fun, happy, provides good collegial relationships and a team atmosphere. Interest value is the extent to which the employer provides an exciting work environment, novel work practices and makes use of its employee’s creativity to produce high-quality, innovative products and services. Economic value is the extent to which recruits think that an employer provides above-average salary, compensation
package, job security and promotional opportunities. Application value is based on a recruit’s perception that the employer provides opportunities for employees to apply what they have learned and to teach others in an environment that is both customer orientated and humanitarian.

Employer branding is thus integral to attraction strategies. In developing brand distinctiveness, Cooper (2008) advocates a number of strategies, including recognition, meaningful work, career counselling and development, learning and development, mentoring, engagement with schools and other institutions of learning, management of change, work/life balance, flexibility and additional services such as child care. Collins and Stevens (2002) examined four strategies for companies to place their brand in an arena where potential recruits might recognise it. They examined publicity (CEO quoted in newspapers, news stories about the organisation), sponsorship activities (scholarships, sponsored events) word of mouth endorsements (many alumni go to work there, positive engineering faculty opinions) and advertising (recruitment brochures, websites etc). Advertising, and word of mouth endorsements were found to be most highly correlated with positive attitudes to the organisations. The researchers also found that multiple components were likely to be more effective than one. However, they found that early recruitment activities were effective attractors for young engineers applying to that organisation.

Our research thus extrapolates a brand equity approach to exploring rail as a brand and calls on career preference literature to help make sense of the perceptions of rail held by engineering students and their influencers.

**METHODOLOGY**

An Exploratory Sequential Design informed the research methodology for the eighteen-month project, where the first method (qualitative) can help develop or inform the second method (quantitative) (Greene, 2007). This method is well suited for exploring a phenomenon (Plano Clark and Creswell, 2008) and is useful when the researchers need to develop an instrument because one is not available (Creswell, 2009).

The first stage of this research was predominantly qualitative and a selection of the results is reported in this paper. It involved interviews and focus groups with final year university and TAFE engineering students, their teachers/lecturers and careers advisers, commercial recruiters specialising in engineering employment, key people in professional associations such as Engineers Australia and human resource practitioners/recruiters in several rail organisations.

The findings of the student material and perceptions of others on student preferences have informed the quantitative stage, an Australia-wide survey of final year engineering students. This is currently being analysed. In addition, Internet research on attraction, image and recruitment strategies and observation at a careers fair is being conducted. The third, projected stage is qualitative and will follow up survey results with selected informants if necessary.
A Project Steering Committee consisting of representatives from public rail organisations in four states, two private rail sector organisations and four academics from two universities has set the direction for and gives feedback on the research and also facilitates entry into rail organisations. In addition, a Reference Group of academics gives feedback on methodology, findings and draft reports. Research papers, reports to industry and a portfolio of image and attraction strategies are the ‘deliverables’ of the research project. This paper reports the first completed stage of the research and offers stand-alone findings.

Purposive sampling was used for the interviews and focus groups. A total of 34 interviews with engineering academics and TAFE teachers, careers advisors and commercial recruitment consultants in Sydney, Brisbane, Melbourne, Perth and Adelaide were conducted. Eight focus groups, totalling 101 participants, including university and TAFE engineering students, current rail engineering graduates and rail apprentices, were undertaken in Brisbane, Perth, Rockhampton and Sydney. The data gathering occurred in late 2009/early 2010. As Australia currently has what the media has dubbed a ‘two-speed economy’ with Queensland and Western Australia, currently doing better economically than other states and seemingly attracting large numbers of engineers to the mining industry, the research team was at pains to include those two states, despite additional travel time and costs. All interviews were transcribed, focus groups were run by at least two people and extensive notes were taken. NVIVO8 was used to analyse the focus group and interview material. The research team then workshoped the results to develop the survey instrument.

**FINDINGS**

**Career Knowledge: What do university and TAFE students, their teachers/lecturers and careers advisors know about rail and competing careers?**

Unless probed, student responses generally indicated a low level of knowledge of rail careers. Train drivers, security guards and track-workers were all nominated as typical rail careers. Most students have not had rail brought to their attention within the university and TAFE environments, either through in-class presentations, being assigned rail-focused assignments or projects, internship type experiences or through a high rail presence at careers fairs or other on-campus activities such as sponsorship of extra-curricula activities.

The careers advisors interviewed had little or no knowledge of rail careers. However, they suggested that having detailed knowledge of an industry in order to recommend a career is not the focus of a careers counsellor. This is borne out by student responses, which suggested that the advice that careers advisors provide is not industry specific and tends to focus on identifying subjects and qualifications, often based on a student’s academic strengths.

Engineering teachers and academics have varying levels of knowledge of rail and rail careers, ranging from those with direct, extensive rail experience and current networks to those with minimal knowledge and networks. Increasing the knowledge levels of academics and teachers and creating networking
opportunities appears to be critical since these parties are often responsible for recommending industry placements. The lack of knowledge may partly be because rail does not feature prominently in engineering courses and is therefore not routinely brought to the attention of students. Those academics and teachers interviewed all expressed interest in better understanding the career opportunities open to their students. In recognition of their ability to influence students’ perceptions (Patton and McMahon, 2006; Rainey et al, 2008) these teachers suggested access to rail-based case studies and increasing engagement with industry through activities such as industry presentations, project sponsorship and academic scholarships would benefit both their students and the rail industry.

Despite anecdotal and informal evidence from informants inside the rail industry, mining was not seen as the major employer by students, their teachers and careers advisors. This is born out by contemporary statistics that put mining as the eighteenth employer in terms of size of its workforce in a list of the nineteen, major Australian industries (Australian Bureau of Statistics (ABS) 2010). Health and Aged Care (1.2 million), Retail (1.18 million) and Construction (1 million) are the major employers in Australia and while 14,400 mining jobs were created in the six months to May 2010, the Construction industry added 40,000 jobs and Transport 24,000 jobs (ABS, 2010; Martin, 2010). Both are also employers of engineers and technicians.

Students and their influencers perceived state and local government involved in civil construction, Defence, transport (roads) and large utilities (power and water) as potential employers. In Australia many utilities are now privately owned so level of knowledge did not reflect a private/public divide. Some students and most teachers and careers advisors were well aware of the private companies that often win large government contracts. They observed that these companies often employed early career engineers who had gained experience in government graduate employment programs and perceived that promotion was quicker in these companies in comparison to the public sector. These private companies were also seen to recruit enthusiastically and offer attractive remuneration packages. This data supports the literature that informal sources, including word of mouth, are strong influencers in relation to career development (Collins and Stevens, 2002; Rainey et al 2008).

Commercial recruitment consultants reported that it is more difficult to attract candidates to public rail than to the private engineering companies, primarily because of the negative perceptions that candidates have of public rail and because, as recruitment consultants, they are not always able to describe a career path to the candidates. They also noted that young graduates were more likely to make career decisions based on the image of the organisation whereas engineers who have been in the workforce for some years are more influenced by characteristics such as the profile or complexity of specific projects.

The legacy of network-specific technologies and work processes undeniably contributes to the perception that rail skills are not portable nationally or internationally and may lead to engineers being ‘pigeon-holed’ as state-based rail specialists. That said, some graduates and apprentices rejected this
perception and maintained that their skills are transferable both within and outside the rail industry.

A strategic approach to engaging with the educational sector does not appear to exist within the broader rail industry. No students indicated having previously participated in industry-related events such as career nights hosted by the industry or attending presentations by rail representatives. Likewise, career advisors, academics and teachers have had little or no engagement with industry through guest speakers, sponsorship of engineering projects or industry placements and the like. As one academic commented, “In all the years that I’ve worked for the university, and I am responsible for work experience, I have never once communicated with anyone from the rail industry”.

Another academic commented that, in his fourteen years as a teacher, he had never been approached by the rail industry. In contrast, some industries/organisations such as government agencies, Defence and mining were highly visible on campus and actively recruited students for industry placements. As one student recollected: “The Main Roads Department and the City Council all came to us and told us ‘This is what we do’” (TAFE engineering student, male).

Mining companies were reported as being particularly effective in engaging with the education sectors in their efforts to recruit engineers. Teachers and academics reported that students respond positively towards the organisations that have expressed an interest in meeting students. Similarly, a recent engineering industry event introducing rail employers (private and public) to graduates attracted over 130 young engineers on a Saturday morning in Melbourne, strongly suggesting that students will respond positively to industry initiatives designed to specifically provide information on rail careers.

The interviews clearly suggest that teachers and academics would welcome greater engagement with the rail industry. Measures of engagement suggested by teachers and academics included the provision of practical rail-specific case studies, project sponsorship, increased participation in internships and placement programs and increased visibility at career fairs and similar events. Some commercial recruitment consultants indicated that a move from a transactional to partnership approach between the rail industry and the recruitment sector could better meet rail’s recruitment needs. Suggestions included allowing the recruiters to visit rail workplaces, and a willingness of rail organisations to think outside the square with regards to recruitment, including greater consideration of overseas trained candidates. (This is the focus of another research project, Skilled Migration, in which two of the authors are also engaged).

Career knowledge: What/who are the key influencers of student engineers?

Responses from students and new graduates working in rail strongly suggest that word-of-mouth from family and friends have a very strong influence on the positive perceptions and knowledge of rail and rail careers. This finding supports the literature. One female engineering student described how, after spending time with her uncle, an engineer, she developed a fascination with rail-related
construction: “I’d see a river and think I’m going to find a way to build a bridge.” In describing how she came to be working in the rail industry, an apprentice identified versatility as an important motivation: “I had a mate who worked for rail as a transit officer and is now a driver. He told me that rail was good – if you don’t like your job you can change it!”

In contrast, the effect of media coverage and the extrapolation of consumer experience to expected employment experiences were the key drivers of the negative perception of rail careers. This reflects earlier research conducted by the ARA (2007a and b). Negative media about public transport (dirty, slow, potentially dangerous) was reported in all focus groups as being influential to how potential recruits might view a career in rail and might also discourage them from seeking out further information about rail careers. The term ‘male, pale and stale’ is explicitly used by informants inside rail organisations and implicitly by some outside to describe the rail workforce indicating low development, social and interest value dimensions to potential recruits (Berthon et al., 2005).

**Job Characteristic Preferences: What are the career attractors for this group of future engineering professionals?**

The most cited work characteristics for graduating university and TAFE engineers can be grouped into five general categories, discussed here in no particular order of student preference. Firstly, remuneration and compensation packages that encompass a competitive salary, company car, bonuses, superannuation and travel/relocation support. Secondly, interesting work in the discipline area, including exposure to different facets of the industry, variety of work, using cutting edge technology, opportunities to design rather than maintain infrastructure and working on large and challenging projects. Thirdly, continual professional and career development, informally through job rotation and formally through articulating into a degree (for those with TAFE qualifications) or undertaking advanced study for those with degrees. Fourthly, security/stability/job security with an organisation with a stable future – some mentioned friends in the mining industry who had recently been made redundant. Finally, a range of working conditions was discussed including flexibility, adventure/international travel and not being blocked in career progression by senior staff, who do not move on.

Many of the career anchors identified by Schein (1990) and McDonald and Hite (2005) appear in the list above. Interestingly, work life balance and boundaryless careers, environmental sustainability and corporate social responsibility figure less prominently than have been suggested in relation to Generation Y (McDonald and Hite, 2005; Stanton-Smith 2006/06). It is also worth noting the growing importance of remuneration, continuing career development and security as key characteristic preferences. These were not among the top five drivers in 2008 as reported in the paper *Labour Market Outcomes and Experiences of Recent Engineering Graduates* (DEEWR 2009), thus suggesting that concerns around remuneration, job security and competitiveness have intensified as a result of the global financial crisis.
The importance of ongoing professional development opportunities is supported in the literature with a key finding in the above paper (DEEWR 2009), which found that a majority of 240 graduates surveyed were in further, formal study to provide them with additional knowledge, abilities and understanding to enhance their engineering career in Australia. In addition, almost all the TAFE students interviewed for this research expressed the desire to complete a work-sponsored engineering degree within the next three years. This strongly suggests that university pathways are an important consideration in the early stages of an engineer’s career, which, in turn, has implications for employers competing to attract graduates.

In response to the question “Where do you see yourself in three years?”, the TAFE students interviewed rarely nominated a specific employer and responded more broadly with comments such as “building big bridges” or “working as a draughtsperson”. This suggests that, for newly graduating engineers, gaining experience in their specific discipline is a stronger motivation than gaining employment in a particular industry or organisation. This appears to be supported by academics: “The first thing they do is look at some of the discipline-related areas: so I might be interested in geo-technical engineering, so I look particularly for employers in that field, or transportation or structures or whatever”.

**Image and Branding: What are the attitudes/perceptions of university and TAFE students to rail as a ‘brand’**.

The most enduring image of rail among the informants is that of a public transport network rather than a field of engineering. This has resulted in the perception that all rail and rail-related organisations are public entities and are stereotyped as bureaucratic. This image of rail as a ‘bureaucracy’ has been identified as a major constraint for rail attractiveness by commercial recruitment consultants, TAFE teachers, university academics and careers advisors. The industry may perpetuate the image of being a solid, reliable employer when this is no longer necessarily realistic or attractive to young graduates.

Generally, TAFE engineering students had little or no first-hand experience of rail employment and perceptions such as old infrastructure, dirty rolling stock and bureaucratic organisational structures were typically made on the basis of their commuter experience. When asked if they had ever thought about working for a rail organisation, typical responses included: “No way, if they can’t keep their carriages clean, how are they going to look after me?” and “[I] Don’t think we can expect good work conditions if they can’t fix their trains”.

When asked to describe a rail career, the perception that rail skills are not especially portable and that a career in rail may lead to being ‘pigeonholed’ were expressed, with several students describing rail as “not good for my career path” and “not good for the resume”. The positive perceptions of rail and rail careers recorded by TAFE students were primarily around the possibility of gaining broad engineering experience and flexible working conditions.
Although student perceptions were generally negative and often based on commuter experience, the perceptions of current public rail apprentices and, to a lesser extent, graduates, were generally positive. Many of the apprentices formed their pre-employment perceptions based on word-of-mouth of family members and close friends and acquaintances who had experience with public rail. As current employees, their perceptions of rail are positive, with rail frequently being described as having a relaxed atmosphere and offering good career prospects, security, flexibility and regular hours. In addition, the apprentices appreciated what they claim are superior apprenticeship conditions: “(Public commuter rail organisation) offer the best paid apprenticeships compared to private companies; for example, they pay for your uniforms”.

Despite some positive comments about rail, the private engineering consultancies enjoy a stronger brand and are perceived as high-status. These organisations were described as high tech, having a high media presence, landmark projects, multinational, and as diverse and innovative. The perception that public rail is outdoors based and not high tech persists. It also impacts on the ability of rail to attract younger engineers. When asked what sort of jobs they thought might be open to them in the rail industry one student observed: “Maintenance is not interesting when you’re young. It’s OK when you’re older, but now I’m not interested in routine maintenance”. Rail graduates in rail employment reported that they do indeed often spend more time maintaining the existing infrastructure and rolling stock than being involved in design or new developments.

Rail was also perceived as unexciting, not at the forefront of innovation, stagnant, ‘You go nowhere in rail’, “Go there if you want to coast along”. Rail was also described as having a long, difficult recruitment processes and not promoting itself as professional. As an industry it was described as lacking team cohesion and one where little movement of older employees restricted the careers of younger ones. Some of this was supported by those apprentices and graduates currently working in rail, however they also reported that rail was less of a boy’s club than anticipated, offered regular hours, good teamwork, job security, opportunities to work on interesting projects, flexible work conditions and portable skills development. However, these same informants also perceived better ‘perks’ and rewards in private companies, a greater number of younger employees and swift career trajectories. Rumours of new graduates receiving very high salaries for their level of experience were cited.

Thus the image of public rail appears to be perceived at a low level in terms of its functional and experiential value (Lievens et al, 2007) and its development, application and social value dimensions (Berthon et al 2005). In contrast, private rail organisations are perceived to rank more highly on all dimensions. In addition, there appears to be inconsistency in the information generated by formal and informal sources (Fernández-Barcala and González-Díaz, 2006).

From the branding perspective it appears that the potential to influence students in a positive manner is currently underutilised by the rail industry as students report a very low profile for public rail organisations at careers fairs or through other marketing avenues. Students were asked to identify the things that would
Attraction and image for the Australian rail industry

They identified excitement, use of cutting edge technology and engagement with large, important projects, transferability of skills, geographical mobility and global careers. Such attractors are clearly missing from rail branding and recruitment collateral. The Rail Careers website (http://www.railcareers.net.au) offers general information and a portal to a number of rail organisations. The Engineers Australia website (http://www.engineersaustralia.org.au/) offers information for students and early career engineers as well as a job board. These sites are not well known among students and lack the engagement factor and level of information of a site such as Defence Jobs (http://www.defencejobs.gov.au/) that promotes engaging with cutting edge technology, people management and adventure.

Lack of information about and engagement with the rail industry were identified by academics and teachers as limiting their ability to promote rail as a viable career. Teachers and academics were keen to engage more with the rail industry and regard both the private rail and public rail sectors as having an exciting future. Although they recognise the influence of perception and agree that work conditions in the private sector are generally more attractive to graduates, they believe that students could be attracted to rail careers in both the public and private sectors by better publicity of the large infrastructure projects and more comprehensive engagement with education providers. As one academic noted, “Rail has not been seen as a good career future .... It seems to be a place where you go if you want a safe career. However, railways are certainly in expansion mode and it’s time to start putting it out to students.”

Rail branding could thus present a more contemporary and dynamic face and could utilise contemporary communication media more effectively. Clearly, websites need to respond to the career anchors and attractors in synergy with its target recruitment market. As informal sources and word of mouth have been identified above as key influencers, contemporary word of mouth involving the use of social networking sites such as Facebook or Twitter could well have a role in rail branding.

Limitations

While this research has a broader scope than any previous research in Australia on rail image and attraction, it reflects the views of a particular number of informants. The research team is yet to access the views of other key influencers such as parents, early career (3-6 years experience) and mid-career, qualified engineers and technical staff and the unions. However, the information gleaned from the informants, which is much broader than that reported within the limits of this paper, has given the research team more than adequate data on which to base its survey, directed at a far wider group of final year engineering students in five states in Australia.

Further Research

A study such as this prompts a wider range of questions than it answers. Taking a long-term view about supply of engineers and highly skilled technical staff, further research is warranted into the relative lack of popularity of maths,
science and technology subjects in primary and secondary education, how these discipline areas are taught and the continued gendering of such subjects/courses/careers when they are pursued at tertiary level. Australian universities are lifting ‘caps’ on enrolments, however, students need to have the skills in subjects and the high school grades to gain admittance to engineering courses as well as the interest in engineering and related careers.

On an entirely different note, intra-organisational research could also be conducted into the relationship between how a rail organisation develops an image and how its recruiting function operates. This could involve analysis of how Marketing and Public Relations departments liaise with the Human Resource function in an organisation.

There is also a need to ensure that rail brand aligns with reality. Further research relating to cultural and structural issues and recruitment processes within rail organisations that give rise to some of the comments in this paper is also warranted.

In addition, the complex private/public relationships that have emerged in the rail industry to undertake massive rail infrastructure projects have raised interesting HR considerations. Within this context further research on the development of industry image, workforce planning and retention of engineers within the rail industry may be warranted.

Finally, the very high proportion of international students in engineering cohorts across Australia represents an underutilised source of talent for the rail industry. How Australian rail careers are perceived internationally and by international students in Australia might be further explored within the context of improved workforce planning.

**CONCLUSION**

The initial research questions have thus been answered and are being used to inform wider research on attraction and image with one group of potential employees, soon-to-graduate engineers and technically qualified people. The following points summarise the issues and point to further action and/or research:

Perceptions of rail by potential, entry-level, engineering employees are clearly linked to the commuter experience and the profile of public rail organisations. These organisations are seen as bureaucratic, having long recruitment processes, lacking in innovation and not career friendly. On the other hand, a more nuanced and balanced picture emerges from those already in entry-level positions in public rail. This positive, ‘insider’ perspective is not being fully utilised in attraction and image strategies.

There is, however, a clear view that private rail organisations are more attractive employers and are a place to move on to after a time in public rail. More research is needed to ascertain whether there is a two-way traffic between private and public rail labour pools, although anecdotal evidence suggests that this is the case.
There are also public versus private sector image issues and further investigation into the branding of private sector engineering companies and explorations of opportunities to leverage the strong brands of private rail partners is warranted.

Rail as a brand does not have a high profile as a career option for graduating engineers. There is lack of an easily identifiable, one-stop career information service on rail and a need for a national approach to branding initiatives. There is also a relatively low visibility of rail at career fairs, at other university events and on the Web. There is a need for co-operation between rail organisations to develop a contemporary rail ‘image’ (innovative, high-tech, environmentally friendly) and innovative attraction strategies.

REFERENCES


Attraction and image for the Australian rail industry

Engineers Australia 2009, ‘Inquiry into Skills Shortages in the Rail Industry – Submission to the Victorian Education and Training Committee’


Manpower 2009a, 2009 Talent Shortage Survey Results, Manpower Services Australia Inc.

Martin, P. 2010, ‘Mining jobs at record high, but industry still only a small employer’, *Sydney Morning Herald*, Friday June 18, p. 8.


