

Demonstrating the bottom-line impact of HR: a competencies case study

The surest way of gaining top-level backing for a competency project lies in quantifying the returns on the investment. Stephen Martin and Lionel Laroche draw on a real-life example to show how it can be done.

One of the great frustrations for those who work in human resource (HR) management is an inability to make an economic case for an investment in HR tools and processes in the terms that make the most impression on those who hold the purse-strings – by showing the impact on the bottom line.

Yet the basic methodology for making effective return-on-investment (ROI) calculations to value the impact of HR initiatives has been around for some time. Why have HR practitioners – seemingly themselves convinced of the business justification for investing in HR programmes – shied away from using the same kind of analysis that other functions habitually use?

One possible explanation is HR practitioners' fear even to make the case in the face of the continuing scepticism of many line managers that HR investments contribute appreciably to the financial success of the organisation. Another likely cause is that the HR profession is not interested in getting involved in such prosaic pounds-and-pence debates; they are content to leave such grubby financial matters to others while they involve themselves in the loftier questions of human development, ethics and diversity. Or is the reason, dare we suggest, that HR is populated with the innumerate, and the thought of analysing costs and benefits and coming to a mathematical conclusion is just beyond the ken of most of us?

Our view is that the answer lies in a more basic realm, though in a way it is a conclusion that is no less unkind to our profession. It is simply that few HR managers are aware of the research and the processes that permit rational return-on-investment (ROI) assess-

ments to be made in the world of HR. And, because so few are aware, the method does not get used. Whatever the explanation, it is a serious and missed opportunity. If there is a credibility gap affecting the HR function, this is one way to bridge it.

It is also an issue that has a huge impact on human performance at work. If we believe that the implementation of best-practice HR processes in development, training, performance management, compensation, recruitment and selection and the rest are critical to the performance of organisations, then their absence is a serious restriction on individuals who want to develop and perform at work. Clearly, the ability of the HR profession to make the case and to win resources in competition with other worthy causes is critical to the perception of the function, and to the credibility of its claims to make a demonstrable difference to human and organisational performance.

THE BUSINESS SCENARIO

The following case study is drawn from a real proposal, offered to the New York-based executive committee of an international financial services organisation. The task was to persuade financially sophisticated HR sceptics that making a significant investment in a major programme of competency analysis and applications in recruitment, development and performance management was worth it to an organisation in a shrinking market sector and facing tough times well into the foreseeable future – just the sort of challenge the average HR practitioner would relish.

The business scenario was not untypical of those that HR has to

face in many market sectors. The company had grown over a number of years from a standing start into a major player in its sector. It had a strong customer base, and enjoyed effective relationships built on a strong technical foundation for its products. But, as with many such organisations, it faced an uncertain future as its main market had matured and was probably already beyond saturation point. Technical developments in other arenas were now threatening the very rationale on which the company's original product range was built.

The executive committee – prompted by a recent board-level recruit to the corporate services portfolio – was realising that it was ill-equipped to manage through a period of ever-quickenning change, and was in danger of failing to match the technical skills, agility, creativity and drive for achievement that some of its own corporate customers were able to demonstrate. For some members, including the chief executive, the need for a drive towards improving the capability of their people was becoming clear. Many, however, remained unconvinced – beyond allowing a modest increase in the technical training budget. The money could be spent on many other things. So how to make the case, and in terms that would win over the sceptics?

THE PROPOSITION

The proposition was to build and implement competency models – initially for the senior level itself, and later as a broader pilot – across the sales and marketing function. The focus for implementation would be on recruitment and selection, development and succession planning. The rationale for using competencies to underpin these and the other applications to come later was to present an effective model for the capabilities and behaviours that would enable the business to grow and develop in line with its newly defined business strategy.

The organisation had ambition; it was not content to be the biggest player in a shrinking market, through to an inevitable point of oblivion somewhere on a not-too-distant horizon. Clearly, more of the same would not provide a springboard for change. Developing and using exemplar-focused competencies that reflected the strategic needs of the organisation and the development needs of individuals was seen as an effective way to kick-start the change process.

The basic information on which the board presentation was constructed was as follows:

The sales and marketing team:

- The function was globally dispersed, with major concentrations in three regional locations. It totalled some 100 staff.
- Salaries varied across regions, but a reasonable average was US\$90k plus 50% variable bonus payable for “on-target” performance, generating typical total compensation of around US\$135k.
- Staff turnover for the group was around the 20% mark, although actual levels varied between regions.

The senior management team:

- Included the chief executive officer and the team reporting directly to this level, plus selected members of their direct-report teams. In all, the target group numbered 20 individuals.
- All of the senior team was located in either the UK or USA, although many of the group had international responsibilities.
- Succession to the senior group, and development of the senior group itself, were the key management issues identified by the chief executive officer and board members.

The challenge was to show, in financial terms, how an investment in competency analysis and applications could be justified. The organisation was familiar with cost-benefit analysis as a process for assessing prospective and competing technical projects; why should this potential investment be treated any differently? It was a good question, and the answer was that there was no reason why it should be treated differently, other than the traditional reticence of HR towards using such a methodology.

COST-BENEFIT ANALYSIS

Sales and marketing recruitment

“Elementary laws of statistics predict that the output of a group of workers would form a normal, bell-shaped distribution.”¹ Where research has been conducted, the empirical evidence is that employees’ productivity does indeed form a normal bell-shaped distribution curve, the vast majority of whom have been recruited, selected and trained using “traditional” methods.

It was a reasonable assumption that this “rule of thumb” applied to

the organisation concerned. So, in the case of the 100 or so people working within the sales and marketing teams, there would most likely be a normal distribution of performance. That is, a small proportion of staff would be performing at superior levels, most would be performing around the middle at an acceptable level of performance, and another small group would be at or below the margins of acceptability.

From this, the next reasonable assumption was that the continued use of existing methods of recruitment, training and development would ensure the maintenance of the normal performance distribution curve. With a reported 20% labour turnover rate within the sales and marketing group, there was a high cost associated with maintaining average performance. But the target was to raise performance towards superior levels.

“Superior” performance is defined statistically by researchers as one standard deviation above average performance – roughly the level achieved by the top 10% of staff in a given work situation².

By identifying the competencies that differentiate superior performance from average performance (that is, those used by the top 10%, and that predict superior performance), the selection and training processes could be refocused to recruit people who possess these competencies or who are capable of developing them quickly.

Again, the conclusion of extensive research is that for sales jobs, one standard deviation above the mean is worth 48% to 120% of output³. For this organisation, the calculation of the cost/benefit for the competencies project for sales and marketing was as follows:

- a) Given an existing labour turnover rate of 20%, there will be 20 new recruits within one year (current staff level of 100).
- b) Two of these new recruits are likely to be “superior” performers, based on using existing processes of recruitment (top 10%).
- c) The opportunity is then to recruit the remaining 18 people at a superior level, rather than at average or below.
- d) Using current actual salary + bonus levels (typically US\$135k) as the basis of the calculation⁴, the following benefit in terms of improved performance would be derived, if the selection process worked perfectly:
 $18 \times (\$135k \times 0.48) = \$1,166k$.

e) But it will not work perfectly. So the number has to be discounted by a “degree of imperfection”. Research⁵ indicates that the “criterion validity correlation” related to the use of behavioural interviewing as a method of staff selection is 0.48 to 0.61. The middle of this range is 0.545, which we shall use as the “discount” factor. So the calculation continues:

$$18 \times (\$135k \times 0.48) = \$1,166k \times 0.545 = \$635k$$

f) So, by using competency-based behavioural interviewing techniques as the basis for selection in sales and marketing, at least as effectively as most other organisations that use it, the company could expect to derive \$635k in additional value within one year of implementation – given current levels of labour turnover and total compensation, and the opportunity in the market to achieve it.

g) The basic cost of the competency project for sales and marketing was \$130k; these numbers generate a one-year gross ROI of 488%.

This calculation is based on a turnover rate of 20%. More effective recruitment, it is reasonable to assume, would have a positive impact on this relatively high rate, although there may be a range of factors producing the high attrition rate. While less turnover would have a negative impact on the net value of the competency intervention in subsequent years, there would be positive financial impact through reduced recruitment and other costs. These savings are not included here.

Another factor not taken into account in the calculation is the learning curve that the new recruits will have to go through to get up to speed in their new job. Again, while this may be a factor that “discounts” the net value derived from the competency-based recruitment, it is reasonable to assume that more competent recruits will learn and contribute more quickly than the average performers likely to have been recruited through existing methods. Either case is very difficult to quantify; the working assumption is that these two effects discount each other out.

It can also be reasonably argued that not all the benefits will be achieved in the first year, and that at least a two-year realisation is more likely. If performance is ramped up over a two-year period, 25% of the benefits would be generated in the first year, 75% in the second and the full 100% in the third, all other things remain-

ing equal. But all these benefits would in theory be cumulative since there would be the opportunity to replace average and poor performers with top performers – to the point where everyone is a top performer.

Again, it is very difficult to make plausible assumptions about these effects over time. And in the final analysis, even if the numbers in the original calculation exaggerate the impact by a factor of 100% (that is, the calculated value is twice the actual value), it still makes a compelling case.

COST-BENEFIT ANALYSIS

Sales and marketing training

For the other 80 staff in the sales and marketing team who were not new recruits in year one, the issue became one of identifying the impact that competency-based training and development would have on performance. (Other applications, such as performance management and compensation, would also have a positive impact, but are not included in this analysis.)

As with the earlier example, the value of moving the whole sales population to “superior performance” is research based. A general and reliable rule of thumb has been developed from extensive analysis that values “one standard deviation” as equivalent to 40% of the compensation paid to that group⁶. In addition, as with recruitment, the implementation of competency-based training would not be perfect. Creditable research indicates that the average effect of competency-based technical and sales training is a positive shift of the performance curve by 0.67 of one standard deviation⁷.

Using the same basic process as earlier, the potential impact of implementing competency-based technical and sales training across the whole group (excluding new recruits) was calculated as follows:

80 staff @ average total compensation of US\$135k =	\$10.80m	paybill
Value of one standard deviation: \$10.8m x 0.4 =	\$4.32m	
“Imperfection discount” factor: \$4.32m x 0.67 =	\$2.89m	

So, by successfully applying competency-based technical and sales training and development to the whole group, the company could

reasonably expect a positive financial impact to the value of \$2.89m within one year of implementation.

Even by allowing for a relatively large budget of say \$750k to cover the additional costs of training needs analysis, planning and delivery across the group, this still represented a healthy 385% ROI (the actual cost of the project had been accounted for in the earlier calculation).

Of course, some of the same timescale and negative discount arguments referred to above could also be made here, counterbalanced by other factors that may produce a positive impact but are also not taken into account. Given that, in many organisations, the minimum required one-year ROI for capital projects is typically in the range of 20% to 40%, such arguments become somewhat academic.

COST-BENEFIT ANALYSIS

The senior management group

Research in the field indicates that there is generally wider variance in performance in senior jobs, due to their greater spans of control and discretion, the longer timescales over which they operate, and the greater degree of complexity involved. This is consistent with the much higher variable compensation usually offered at the senior levels in organisations.

It follows that the potential impact of improved performance at this level on the overall performance of the organisation is much greater than at middle and junior levels. However, to avoid the danger of exaggeration, it was prudent to continue to use the “40% rule” for the cost/benefit calculation in respect of the senior group.

Making some assumptions about total compensation at the senior level, the calculation for the company was as follows:

20 staff at estimated average total compensation of US\$150k: 20 x \$150k =	\$3.0m	paybill
Value of one standard deviation: \$3.0m x 0.4 =	\$1.2m	
“Imperfection discount” factor: \$1.2m x 0.67 =	\$804k	

Against the project cost of \$80k, and adding an estimated additional training and development cost of \$250k, this generates a gross ROI of 243% on successful implementation.

CONCLUSION

For this organisation, which was making difficult and expensive investment decisions, evaluating competing proposals and allocating scarce resources in the real world, with real money, this methodology proved helpful and, ultimately, convincing. While the procedure outlined here may not be perfect – and, indeed, we have highlighted some of the inadequacies of the calculations – it represents a major step forward in terms of making the case for investment in HR-related programmes.

We do of course accept, and indeed habitually make, the case for serious consideration of *non-financial* benefits derived from such projects. But it is difficult to deny that the ability to make a rational case in financial terms represents a powerful “new” weapon in the armoury of any ambitious HR function.

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References and notes

¹ *Selection and assessment – a new appraisal*, M Smith, M Gregg and D Andrews, Pitman, 1989.

² *Competence at work: models for superior performance*, ed. by Lyle M Spencer and Signe M Spencer, Wiley, 1993.

³ “Individual differences in output variability as a function of job complexity”, J Hunter, F Schmidt and M Judiesch, *Journal of Applied Psychology* 75, 1990, pp.28–42.

⁴ Salary is used rather than “output” because, without extensive research, it is very difficult in most jobs to establish a reliable value for the output directly derived from a particular job – with the notable exception of sales jobs.

⁵ “Can behavioural interviews produce results?”, Sean Boyle, *Guidance & Assessment Review*, vol. 4 no.1, February 1988, pp.4–6.

⁶ Referenced in *Selection and assessment – a new appraisal*, M Smith, M Gregg and D Andrews, p.111.

⁷ “Meta-analysis of personnel training techniques for three populations”, A Falcone, J Edwards and R Day, presentation to the Academy of Management, Chicago, 1986.