

Center for Effective Organizations

> PERFORMANCE MANAGEMENT: WHAT WORKS?

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Performance Management: What Works?

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Establishing an effective performance management system is a major challenge for most organizations. It has been a key topic in the human resources management literature for decades (Mohrman, Resnick-West and Lawler, 1989; Latham and Wexley, 1994). Recently, a great deal of attention has been focused on it. Perhaps the most important reason for this interest is the increased importance of human capital. Because work requires more knowledge and skills, organizations depend more and more on the performance of their human capital, and as a result are increasingly focused on how it is managed.

It is very difficult to effectively manage human capital without a system that measures performance and performance capability. Organizations need a system that can identify the capabilities of its human capital so that it can effectively staff projects and implement strategic initiatives and so it can manage workforce development. They also need measures of performance so they can deal with performance problems and encourage performance excellence.

There are a wide variety of approaches to performance management that companies can potentially use. The number of choices an organization has actually been increasing because of the availability of 360 appraisal tools and the growing use of the web to enable organizations to do more integrated and comprehensive human capital management.

A great deal of the theory concerned with human motivation and human development argues that an effective performance management system should be a key

building block of every organization's human capital management system (Smither, 1998). For example, in order to tie performance to rewards, the key to motivating performance, organizations need to have accurate measures of individual performance (Lawler, 2000). In order to develop, individuals need feedback about their strengths and weaknesses. Organizations need performance information in order to direct their training and development resources to those individuals who can gain most by them. Finally, they need performance information in order to correct performance problems.

There is no shortage of ideas about makes for effective performance appraisal systems. The academic literature stresses the importance of goals, behavior-based measures, ongoing feedback, training, and a plethora of other practices (Smither, 1998). What is missing are data that establish the impact of many of the practices that are recommended in the writings on performance management as well as information about what companies are actually doing at this point in time. The present study is designed to fill these two voids. It focuses on the practices used in large U.S. corporations, as well as the relationship between those practices and the effectiveness of their performance management systems.

Methodology

Surveys were e-mailed to medium and large companies that are sponsors of the Center for Effective Organizations at the University of Southern California or members of the Fortune 500. Individuals who did not respond to the e-mail were subsequently mailed a paper copy of the survey. Surveys were sent to HR managers who were familiar with the performance management systems in their companies. A total of 121 companies were contacted, and 55 surveys were returned, for a response rate of 45%.

The survey covered some general questions about the nature of the performance management system in the companies, such as how many systems they had, who is responsible for the system, and how long they have been in place. It also asked about the extent to which a number of practices were part of the performance management system. These items, which will be the major subject of the article, were rated on a 1-5 scale.

The second major section of the questionnaire focused on the effectiveness of the performance management system. It asked about the overall effectiveness of the system, as well as its impact in a number of areas concerning development, motivation, and measurement. Ratings were made on a 1 (not effective) to 7 (very effective) scale. These effectiveness items were factor analyzed and divided into two factors. The first can best be described as an overall effectiveness factor that covers motivation, development, culture, and business strategy. The second factor is focused on the differentiation effectiveness of the system. It included items on the ability of the system to reward top talent, identify poor performers, and identify top performers.

Characteristics of Systems

The responses concerning the characteristics of the performance management systems in the companies studied show that most, 86%, had consistent performance management practices company-wide. The typical company had two systems, although some had many. Because of the existence of multiple systems, the respondents were asked to respond to all questions for the system that covered the most employees. For those companies that had more than one system, the most common criterion for differentiating the systems was level in the organization; in other words, they typically had a different system for higher-level employees than for the rest of the organization.

The average system studied had been in place for three years. Forty-six percent of the companies said that they were making or were about to make a change in their system. Clearly, these companies were not sticking to the same system for long periods of time and in many cases do not feel that they have found the right approach to performance management. This is further reinforced by the fact that although most companies use a rating scale approach to measurement, in over half the companies the rating scale that is used has changed in the last two years. Twenty-seven percent of companies report that they use a forced distribution system. Finally, most companies in the sample do an annual performance appraisal at the end of their fiscal year.

Use of Goals

There is a large literature on the impact of goals, which suggests that they can have a powerful impact on motivation and performance (Locke and Latham, 1990). Goals are also a way that business strategy can be translated into individual behavior. Most of the writing on goal setting suggests that in order for goals to support business strategy, individuals must have specific goals that are aligned with corporate business strategy. It also suggests that in order to be motivating, goals should be jointly set at the beginning of a performance management cycle.

Table 1 presents the results for the three questions that were asked about goals. It shows that many companies do not place an emphasis on individuals having preset goals. On the other hand, most companies do use their business strategy to establish performance goals and in most cases they are jointly set at the individual level. The results also show that jointly set and performance-driven goals are strongly related to performance management system effectiveness.

Only the practice of having performance management goals driven by business strategy is related to differentiation effectiveness. One explanation for the relationship between business strategy-driven goals and differentiation effectiveness is that using business strategy for goal setting makes it clearer what separates individuals from a performance point of view, and it helps justify giving them different ratings.

Overall, the results strongly support the argument that business strategy-driven performance goals are a positive and that having individual performance goals, particularly individual goals that are jointly set, is a positive contributor to performance management system effectiveness. It is less clear why pre-set performance goals are not more commonly used or more strongly related to effectiveness. From the point of goalsetting theory, the earlier goals are established, the better, because it establishes both the levels of performance and areas of performance that are important.

Communication

Discussions of performance management frequently argue that it is very important that managers give individuals ongoing feedback about how well they are performing. The rationale for this includes the chance it provides for ongoing adjustments in performance and the prevention of end-of-the-performance-period surprises and conflicts. It is also common to suggest that the individuals being appraised should have an opportunity to provide performance information to those who are making a judgment about their performance.

Table 2 shows the results of two questions that address ongoing feedback and providing performance information. It shows that ongoing feedback is not present to a great or very great extent in the performance management systems of these companies.

Only 9% of the companies feel that it happens to a very great extent. More common is an opportunity for individuals being appraised to provide performance information to their appraiser. Thirty-eight percent of the companies say this happens to a very great extent in their systems.

As many of the writings on performance management predict, ongoing feedback is strongly related to performance management effectiveness. Less strongly related is the opportunity for the individuals being appraised to provide performance information. The results for differentiation effectiveness are not as strong. Ongoing feedback is significantly related to it, but the opportunity to provide performance input is not. This result is not surprising, since the opportunity to provide performance information is not necessarily expected to increase differentiation, just the perceived fairness and impact of the appraisal process. Overall, the results strongly suggest that organizations should build ongoing feedback into their systems and provide individuals with the opportunity to provide performance information.

Employee Development

An important objective of many performance management systems is employee development. In the last decade, competency models have been developed in many companies, and they are being used to aid development planning and assessment.

Table 3 presents information on how performance management systems handle some of the most important development issues. As might be expected, development planning is present in systems to a moderate or greater extent in over half the companies. The results show that the competencies are also used relatively frequently. Almost half

the companies use them to a great extent in their performance management systems. Less common are competency models that are based on business strategy.

The frequently recommended practice of keeping development separate from appraisal is used to a moderate or less extent by most companies. Measures of how individuals achieve their results can be useful for development purposes because they can show what behavior needs to improve in order for performance to improve. They are used to a moderate extent or greater by over half of the companies.

There is a particularly strong relationship between effectiveness and using measures of how individuals accomplish their results. This strongly suggests that systems work when people are appraised on both their results and how they go about obtaining them. As already noted, it helps with development, and it may also help with focusing behavior and therefore performance.

The remaining results relating the use of development practices to performance management effectiveness are strong with one exception. Separating development from appraisal is not significantly related to performance management system effectiveness. In some respects, this is not surprising. It is quite possible to argue that development discussions are best held in the context of an appraisal of a person's performance, because it can highlight the type of performance improvement that is needed and motivate individuals to improve. What may need to be separated from a development discussion is the impact of performance appraisals on rewards. There is evidence that this has a tendency to cause individuals to not hear development feedback and to respond poorly to it.

The results for differentiation effectiveness show no strong relationships. The relationship to development planning is statistically significant, but not high. In many respects, the fact that there are no strong relationships here is not surprising. These development practices are not necessarily about differentiating individuals, and they do not try to separate individuals. Development certainly can be aided by information that distinguishes people based on their performance, but a focus on development and competencies is not necessarily the kind of the thing that leads to better differentiation of the performance levels of individuals.

Overall, the results suggest that using competencies, developmental planning, and measures of how individuals achieve their results is a significant positive in terms of creating an effective performance management system. This undoubtedly occurs because it provides a strong basis for providing feedback to individuals, relating the capabilities of individuals to business strategy, and helping individuals develop the kind of skills and knowledge they need in order to contribute to organizational effectiveness.

Rewards

The literature on motivation and reward systems places a strong emphasis on the importance of relating financial and other rewards to performance measures. Creating a line of sight from performance to rewards is critical to having a reward system that motivates performance.

Table 4 shows that these organizations do establish a strong relationship between appraisal results and salary increases, bonuses, and to a lesser extent, stock rewards. The obvious implication of this is that they are trying to use financial rewards as motivators of performance. The practice of terminating the lowest-rated employees is not used to a

great extent by these companies. Only one company uses it to a very great extent. Apparently despite the interest that was generated in it as a result of its use by GE, it is not widely used.

The relationship between reward system practices and performance appraisal effectiveness is positive for all the performance management items. The strongest relationship is between appraisal results and salary increases. Apparently, tying the results of performance appraisals to financial rewards does lead to the performance appraisal system being effective. This is an important finding, because it contradicts the frequently made argument that appraisals are more effective when they are not tied to financial rewards.

The results also suggest that tying results to rewards and termination leads to better performance differentiation. The correlations between rewards appraisal items and differentiation effectiveness are positive and in three of four cases, statistically significant. The most likely explanation for this is that in order to effectively distribute rewards for performance, the performance appraisal system must differentiate among employees. There almost always is a limited budget of rewards to be given, and as a result, the performance appraisal system is expected to provide measures of performance that differentiate individuals so that they can be rewarded for their performance.

360° Appraisals

Traditional performance appraisals involve only two individuals: the boss and the subordinate. It is up to the boss to determine what data are gathered, to assess the performance of the individual and to determine how data are used to complete the evaluation. Typically when a boss does an appraisal, little or no information is gathered

from the peers of the individual being appraised, the customers of the individuals being appraised, or the subordinates of the individuals being appraised. There is little doubt that they often have valid data about the performance of the person being appraised, but should their data be gathered and included in the appraisal process?

Advocates of 360° appraisals argue for broad-based data gathering during the appraisal process (Lepsinger and Lucia, 1997). Recently, a number of web-enabled 360° appraisal systems have been developed and marketed by consulting firms.

Table 5 shows that, at this point, 360° appraisal processes have yet to gain wide use. 360° processes that impact rewards are particularly unlikely to be used. This is not surprising, since there are major problems with using 360° appraisal processes for reward purposes. For example, the individual completing the 360° process may be competing with the individual being appraised for a limited pot of rewards, and thus not motivated to give valid data. The most popular use of 360° appraisals clearly is for development only, but even here most companies use it to a moderate or lesser extent.

There appears to be no relationship between the use of 360° appraisals and either the performance management system's effectiveness or its differentiation effectiveness. Apparently, 360° appraisals simply aren't that impactful with respect to the general effectiveness of the appraisal process. Perhaps the best way of summarizing the results with respect to the 360° appraisals is to say that they are not yet widely used and that their efficacy has yet to be established.

Managerial Behavior

Managers at all levels in a hierarchy can play an important role in the operation of the performance management system. If the performance management system is going to

be tied into business strategy, it is critical that senior management take a role and make the tie between business strategy and the performance management system. The behavior of management is also an important indicator of how important the performance management system is and as a result is likely to have a strong influence on how the system is actually executed.

Table 6 presents data from seven items on the role of managers in the performance appraisal system. The data suggest that senior management does play an important role in the performance management system in most companies. Senior management to a great extent play a leadership role in two-thirds of the companies studies. Many companies also have calibration meetings in which managers get together to compare their ratings. However, the responses to two items indicate that most of the companies studied do not place a strong emphasis on how well the performance management system operates. For example, the majority of the companies make little or no effort to appraise managers on how well they actually do appraisals and a majority of the companies put little effort into measuring the effectiveness of the system.

The relationships between the role of managers and the effectiveness of the performance management systems are quite strong. All the items concerned with general management support are statistically significant. The overall pattern provides a strong argument for the important impact of how senior management and managers in general behave with respect to the performance management system. For example, leadership by senior management is very highly correlated with the effectiveness of the system, as is measuring how well managers do appraisals. Similarly, taking measures of the effectiveness of the system is strongly related to the performance management system.

Finally, ownership by line management actually has the highest correlation of any item in the entire study. This is in contrast to the extent to which systems that are owned by HR, where there is no significant relationship with the effectiveness of the system. In short, an effective performance management system depends very much on the behavior of senior managers and the systems they develop to support it.

The differentiation effectiveness results are not as strong as the ones for system effectiveness, but a number of the items are significantly related to differentiation effectiveness. Particularly interesting are the strong correlations with leadership by senior management and ownership by senior management. Again, the results make the point that how managers behave is a very important determinant of the effectiveness of the performance management system.

Finally, there is support for the use of calibration meetings. Their use is significantly correlated with differentiation effectiveness. Since they are typically led by senior managers, this result reinforces the point that differentiation occurs when senior managers provide leadership.

Performance Appraisal Training

There are at least two roles in a performance appraisal: the role of the appraiser and the role of the individual being appraised. The skills to perform these roles are not necessarily present the individuals being appraised or the individuals doing the appraisals. Thus a critical issue in performance appraisal effectiveness is whether training is provided for people doing the appraisal and for individuals being appraised.

The data in Table 7 strongly suggest that managers are likely to receive training in the companies studied, but that individuals in most of the companies do not get training

in how to behave in a performance appraisal situation. This is not surprising since traditionally the appraisal process has been seen as a one-way activity that is orchestrated by the appraiser.

The correlations between the presence of training and the effectiveness of performance appraisals are very high. They show that the presence of training has a large impact on performance appraisal effectiveness. This is true even for the training of individuals being appraised. What is most likely happening is that organizations that take the time to train managers and individuals generally have well-developed systems. As a result, the correlation between training and effectiveness ends up being quite high, both because training helps and because the companies with training have better systems.

The relationship between differentiation effectiveness and training is statistically significant and rather high. This follows the common finding that managers need to be trained in order to make accurate appraisal ratings. The implication of this finding for organizations that want to get differentiation is clear: they need to train their appraisers. Particularly when combined with the result showing that training is related to performance management system effectiveness, a strong argument can be made for the importance of training and developing individuals who will take part in the performance management process.

eHR Appraisal Systems

eHR systems are becoming more popular in corporations (Lawler and Mohrman, 2003). When asked whether web-enabled systems are used in the performance management process, 57% of companies responded that they are. Of these, 48% said that they have paperless, eHR-based systems. In 75% of the companies, the eHR systems are

used for providing information about performance management to participants and for developing performance goals. Other uses include data analysis of ratings and facilitating calibration meetings.

Table 8 shows that the use of eHR systems for performance management is significantly related to both performance management system effectiveness and differentiation effectiveness. Apparently, web enabling the performance management system has a positive impact on its effectiveness. There are a number of possible explanations for this relationship. It may be that the companies that are using the web are more sophisticated and simply are better at performance management. It is also quite possible that eHR systems provide better data and educate people above and beyond what can be done with a manual system. Probably both of these explanations are true, and ultimately the best performance management systems will be highly web enabled. Goals will be set on the web, measures accumulated, and essentially all the performance management process will be performed on the web.

Performance Management Effectiveness

The results in Tables 1 through 7 show a number of practices that are highly correlated with performance management system effectiveness. They provide a clear roadmap concerning what organizations can do to have an effective performance management system.

A surprisingly large number of practices are significantly related to performance appraisal effectiveness. The results strongly argue that practices concerned with goal setting, communication, competency models, reward system practices, behavior of

managers and training all potentially have a positive impact on the effectiveness of performance appraisals.

Perhaps the most surprising omission from the list of positive practices is the 360° appraisal. Despite its growing popularity and the attention it has received in the literature, it is neither correlated with the effectiveness of the appraisal process nor is it very frequently used to a wide extent by companies in our sample.

The following practices are highly correlated with effectiveness and are used to a great extent by the companies in our sample:

- Performance goals that are driven by business strategy
- Jointly set performance goals for individuals
- Close tie between appraisal results and salary increases
- Leadership by senior management
- Development planning

There are no major surprises on this list. They are all items that are frequently mentioned in the literature and therefore, it is hardly surprising that they are widely adopted by the companies that were studied. Perhaps the most surprising item on the list is the close tie between appraisal results and salary increases. It is frequently suggested that this is not a desirable practice because the salary increase discussion may actually overwhelm the feedback individuals get about their performance. The results, however, suggest that this may not be as important as the positive impact that rewarding performance has.

The following practices are high in impact but low in usage:

- Competency models that are based on business strategy
 - 15

- Appraisal of how well managers do appraisals
- Measures of the effectiveness of he system
- Training for individuals being appraised

There are no dramatic surprises on this list, but it does provide a clear picture of what companies are not doing that could be helpful. For example, it shows that competency models need to be driven by business strategy if they are going to make a significant contribution to the performance management system. The results also strongly suggest that there needs to be more measurement of the system's impact, measurement both of how well the managers do appraisals and how well the overall system operates. It is an old truism with respect to organizational behavior that "what gets inspected, gets done," but nevertheless, it is true. Here again we find that when companies want to do a good appraisal, they need to measure how well it is done.

Differentiation Effectiveness

Two practices are high-impact and high-use with respect to differentiation in the performance management process:

- Close tie between appraisal results and salary increases
- Leadership by senior management

Both of these practices are ones that have a positive impact on performance appraisal effectiveness and on differentiation effectiveness. Thus, this result strongly reinforces the importance of them being part of any performance management system.

The following practices are high-impact with respect to differentiation but are not frequently used:

• Training for individuals being appraised

- Termination of the lowest-rated individuals
- Calibration meetings that compare ratings by different managers

Two of the high impact, low use practices are ones that not every organization may want to adopt: calibration and termination. Calibration meetings are a relatively new idea, and it is not surprising that they are not widely used. They normally involve a series of meetings throughout an organization in which appraisers get together to standardize their judgments and be sure that the system is operating fairly across the organization. This particular approach has a number of positives when it comes to using the results of the performance management system for determining rewards. Perhaps most importantly, it is a way to be sure that the organization's policies are consistently implemented across the entire organization. However, it is very time consuming and difficult to manage.

It is not surprising that terminating the lowest-rated individuals is the other item that is high-impact but low-use. It is a controversial practice, and one that may not fit the culture of many organizations. Doing it effectively requires good performance judgments and indeed in companies that use it, appraisals often are based on cross-calibration meetings.

Designing an Integrated HR Management System

One final point about the effectiveness of a performance management system needs to be made. Creating an effective system likely is not simply a matter of picking a number of best practices and putting them in place. There are critical interface and system design issues that need to be taken into account. The individual performance

management practices need to fit with each other and with overall human resource management system of the organization.

One piece of evidence that supports the systems fit argument is the relationship we found in this study between an item that asked about the degree to which the performance management system is integrated with other HR systems and the effectiveness of the performance. The relationship was significant, indicating that the performance management system is not a stand-alone item. It needs to interface effectively with the HRIS system, the salary system, etc. In addition, the pieces of the performance management system need to fit with each other; for example, the training on how to do appraisals needs to be appropriate for the type of measurement system that is used, and as another example, the type of data that comes out needs to be appropriate for promotion purposes, salary increase purposes, and whatever other purposes the system may be used for. Similarly, the timing of the system needs to fit the business cycle of the organization and its business model.

Conclusion

Our results go a long way toward indicating what it takes to make an effective performance management system. They clearly demonstrate that when right practices are in place, the potential exists to create a performance management system that can accomplish multiple objectives. They do not, however, provide a magic formula for the design of a performance management system. Creating an effective system requires the tailoring of practices to the specific situation of an organization. Nevertheless, the practices that were identified in this study as having a positive impact on performance management effectiveness should be considered by every organization. They clearly may

impact the effectiveness of every organization's performance management system. Thus, although we would not argue for blind acceptance and installation of all these practices, we certainly would argue for every organization considering whether or not they would be useful in their particular situation. We would also suggest that particular attention go to those practices that are high-impact but infrequently used. These may be ones where organizations can get the greatest amount of improvement in their performance management systems.

References

Latham, G. P., & Wexley, K. N. (1994). <u>Increasing Productivity Through Performance</u> <u>Appraisal</u>. Reading, MA: Addison-Wesley.

Lawler, E. E., III. (2000). Rewarding Excellence. San Francisco: Jossey-Bass.

Lawler, E. E., III, & Mohrman, S. A. (2003). <u>Creating a Strategic Human Resources</u> <u>Organization: Trends and New Directions</u>. Palo Alto: Stanford University Press.

Lepsinger, R., & Lucia, A. D. (1997). <u>The Art and Science of 360-Degree Feedback</u>. San Francisco: Jossey-Bass.

Locke, E., & Latham, G. P. (1990). <u>A Theory of Goal Setting and Task Performance</u>. Upper Saddle River, NJ: Prentice Hall.

Mohrman, A. M., Jr., Resnick-West, S. M., & Lawler, E. E., III. (1989). <u>Designing</u> <u>Performance Appraisal Systems: Aligning Appraisals and Organizational Realities</u>. San Francisco: Jossey- Bass.

Smither, J. M. (Ed.). (1998). Performance Appraisal. San Francisco: Jossey-Bas

		Percent Frequency					Correlation Coefficient	
	Little or No Extent	Some Extent	Moder ate Extent	Great Extent	Very Great Extent	Mean	Perf Management System Effectiveness	Differentiation Effectiveness
Preset performance goals for individuals	32	26	8	9	25	2.7	.22	.17
Jointly set performance goals for individuals	2	5	11	33	49	4.2	.50***	.17
Performance goals that are driven by business strategy	2	2	11	33	53	4.3	.58***	.34**

		Percent Frequency					Correlation Coefficient	
	Little or No Extent	Some Extent	Moder ate Extent	Great Extent	Very Great Extent	Mean	Perf Management System Effectiveness	Differentiation Effectiveness
On-going feedback by managers	2	25	24	40	9	3.3	.55***	.37**
Opportunity for individuals being appraised to provide performance information to appraisers	4	6	25	28	38	3.9	.30*	.07

		Per	cent Freque	ency			Correlation Coefficient		
	Little or No Extent	Some Extent	Moder ate Extent	Great Extent	Very Great Extent	Mean	Perf Management System Effectiveness	Differentiation Effectiveness	
Development planning	0	20	20	36	24	3.6	.48***	.29*	
Competency models that are based on business strategy	20	31	13	22	15	2.8	.46***	.24	
Competencies	15	25	13	24	24	3.2	.42***	.23	
Discussion of development held separately from appraisal	22	25	20	20	13	2.8	.16	.15	
Measures of how individuals achieve their results	9	20	18	35	18	3.3	.66***	.21	

^{*** =} Significant at the .001 level.

Table 4: Rewards									
		Percent Frequency					Correlation	Coefficient	
	Little or No Extent	Some Extent	Moder ate Extent	Great Extent	Very Great Extent	Mean	Perf Management System Effectiveness	Differentiation Effectiveness	
Close tie between appraisal results and salary increases	0	9	20	33	38	4.0	.44***	.43***	
Close tie between appraisal results and bonuses	4	11	22	33	30	3.7	.31*	.20	
Close tie between appraisal results and stock/stock option grants	17	17	19	29	17	3.1	.28*	.28*	
Termination of the lowest rated individuals	36	38	11	13	2	2.1	.29*	.44***	
Note: For Correlation Coefficients	-		•		•		* = Significant a ** = Significant a *** = Significant a	at the .01 level.	

		Percent Frequency					Correlation Coefficient	
	Little or No Extent	Some Extent	Moder ate Extent	Great Extent	Very Great Extent	Mean	Perf Management System Effectiveness	Differentiation Effectiveness
A 360° appraisal process	58	16	5	11	9	2.0	.10	.07
A 360° process that is used for development only	42	13	16	20	9	2.4	.03	10
A 360° process that impacts rewards	76	11	4	7	2	1.5	.24	.26

	Per	cent Freque	ency			Correlation Coefficient	
Little or No Extent	Some Extent	Moder ate Extent	Great Extent	Very Great Extent	Mean	Perf Management System Effectiveness	Differentiation Effectiveness
5	13	16	35	31	3.7	.63***	.47***
54	15	22	6	4	1.9	.51***	.31*
24	18	18	20	20	3.0	.33*	.37**
20	36	15	18	11	2.6	.60***	.33*
16	20	22	27	15	3.0	.39**	.25
6	19	28	31	17	3.4	.72***	.43***
9	16	22	31	22	3.4	.22	.08
-	or No Extent 5 54 24 20 16 6	Little or No Extent Some Extent 5 13 54 15 24 18 20 36 16 20 6 19	Little or No Extent Some Extent Moder ate Extent 5 13 16 54 15 22 24 18 18 20 36 15 16 20 22 6 19 28	Little or No Extent Some Extent Moder ate Extent Great Extent 5 13 16 35 54 15 22 6 24 18 18 20 20 36 15 18 16 20 22 27 6 19 28 31	Little or No Extent Some Extent Moder ate Extent Great Extent Very Great Extent 5 13 16 35 31 54 15 22 6 4 24 18 18 20 20 20 36 15 18 11 16 20 22 27 15 6 19 28 31 17	Little or No Extent Some Extent Moder ate Extent Great Extent Very Great Extent Mean 5 13 16 35 31 3.7 54 15 22 6 4 1.9 24 18 18 20 20 3.0 20 36 15 18 11 2.6 16 20 22 27 15 3.0 6 19 28 31 17 3.4	Little or No Extent Some Extent Moder ate Extent Great Extent Very Great Extent Perf Management System 5 13 16 35 31 3.7 .63*** 54 15 22 6 4 1.9 .51*** 24 18 18 20 20 3.0 .33* 20 36 15 18 11 2.6 .60*** 16 20 22 27 15 3.0 .39** 6 19 28 31 17 3.4 .72***

		Per	cent Freque	ency			Correlation Coefficient		
	Little or No Extent	Some Extent	Moder ate Extent	Great Extent	Very Great Extent	Mean	Perf Management System Effectiveness	Differentiation Effectiveness	
Training for managers doing appraisals	9	13	36	25	16	3.3	.69***	.45***	
Training for individuals being appraised	27	29	24	13	7	2.4	.59***	.37**	
Table 8 eHR Appraisal Systems							* = Significant a ** = Significant a *** = Significant a	t the .01 level.	
						Use	e eHR in performance r	ngmt	
						Yes Mean		No Mean	
Performance Management System Effectiveness							4.86		
Differentiation Effectiveness					-	5.07		4.22*	
response scale: 1 = Not Effective At All to 7 = Very Effective *Significant difference (p \leq .05) between Yes and No.									