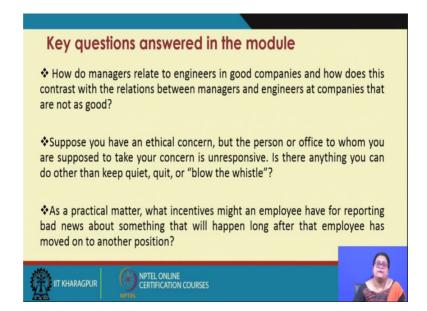
Ethics in Engineering Practice Prof. Susmita Mukhopadhyay Vinod Gupta School of Management Indian Institute of Technology, Kharagpur

Lecture – 37 Key Questions – relating to Engineers Rights and Duties & Ethics

Welcome, today we will discuss some Key Questions relating to Engineers Rights, Duties and Ethics. So, in this module, we are going to discuss Key key Questions questions related to like engineers, who are like employees of particular organizations. And if some like differences of opinion are there, like with the managers or the higher ups, then what are the like ways to solve these things; how to answer these critical like ethical dilemma situations? So, in this module we are; earlier, we have discussed modules or where we have taken them as like rights and duties as professionals, maybe as independent professionals as like particularly to their profession and maybe the ethical responsibilities with respond respect to the society at large.

Here, we are going to focus on mainly their like employment issues and if they are like not in agreement with their manager or supervisors, what are they going to do and some related aspects of it. So, let us see what are the key question in this module.

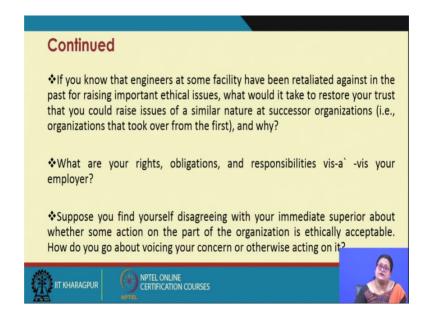
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So, the key questions that will be answered in this module; so, how do managers relate to engineers in good companies and how does this contrast with the relations between managers and engineers at companies that are not as good? Then, suppose you have an ethical concern, but the person or office to whom you are supposed to take your concern to is unresponsive. So, like is there anything you can do other than keep quiet, quit or blow the whistle?

As a practical matter, what incentives might an employee have for reporting bad news of something that will happen long after the employee has moved to another position?

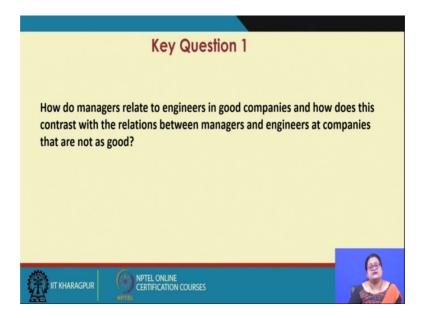
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If you know that engineers at some facility have been retired retaliated against in the past for raising important ethical issues, what would it take to restore your trust that you could raise issues of a similar nature at a successor organization; so, that is organizations that took over from the first, and why?

What are your rights, obligations, and responsibilities vis-a`-vis your employer? Suppose you find yourself disagreeing with your immediate super superior about whether some action on the part of the organization is ethically acceptable. How do you go about voicing your concern or otherwise acting on it?

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So, these as we told are mainly questions related to employment conditions and at engineer as an employee and in agreement with the managers or with the working for this particular organization now which has been taken over by another organization and there are issues related to it. The earlier organization regarding some of the procedures, what are the responsibilities of the engineer in this case to make the new organize, new organization just taken this organization over about those issues. So, we discuss some critical issues like this in this particular module.

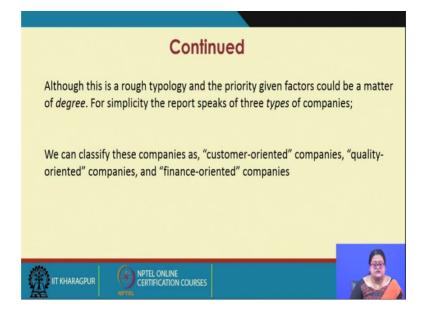
So, let us focus on Key key Question question 1, like how do managers relate to engineers in good companies and how does this contrast with the relation between managers and engineers at companies that are not as good? So, is there any special like touch in the relationship?

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So, what you find? A recent study of communications between engineers and managers by research at the Center for the Study of Ethics in the Professions at the Illinois Institute of Technology reveals how managers respond to unwelcome news from in engineers in well-run high-tech companies. So, the managers identified three value orientations of companies depending on where the company give first priority to customer satisfaction, the quality of it_is works and products and the financial bottom line.

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Although this is a rough typology and the priority given factors could be a matter for degree. So, as a part of the simplicity, the report talks of three types of companies. We can classify these companies as "customer-oriented" companies, "quality-oriented" companies and "finance-oriented" companies.

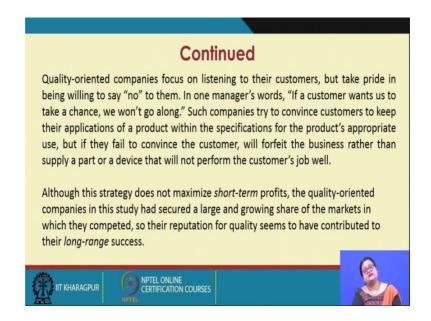
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So, the identification of both custom, "customer-oriented" and "quality-oriented" companies comes as welcome news to some you ng engineers, who fear that concern with the bottom line always dominates their concerns.

These types of companies differ in several ways. So, the in quality-oriented companies, the quality and of course the safety issue takes priority over the cost and the customer's desires. So, like cost may still be the concern, it said of course, it is an important concern, but it comes only after our quality standards are met. So, this is the where the focus of the company is on like the qualities.

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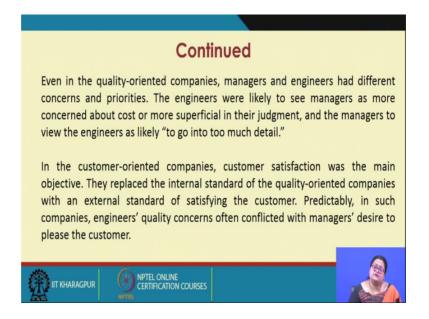
So, quality-oriented companies, they focus on listening to their customers, but may take pride and being willing to say no to them. So, in one manager's words, "if a customer wants us to take a chance we will not go along." Such companies tries to convince their customers to keep their applications of the product within the specifications for the product's appropriate use, but if they fail to convince the customer, they will forfeit the business rather than supply a part of the device that will not perform the company the customer's job well.

So, if we see like this may lead to maybe customer loss also because, if you are saying no to your customers and if you are restricting their use of the products and if you are telling your customers to use it in the most appropriate to way, as it is told by the company. In many cases the customers may become dissatisfied and if you are like them, it may they may withdraw. So, this may not be profitable, appear to be profitable in the short term.

So, but if it develops a trust, if it develops a bond with the market and with the customers, they let me so happen like it will lead to a long term, like the long range success. So, because it establishes itself in the mind of people as a good company who is who will rather leave the business, but not compromise with the quality. So, though in the short term, profit will initiate; it may not be a very good strategy because it does not

maximize the short term profit. But for this quality oriented companies, it may lead to like the long term profit because they have developed a reputation for quality.

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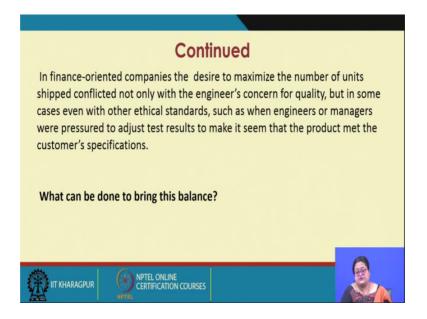
So, even like them quality-oriented companies. So, there could be a difference in the managers and engineers with their concerns and priorities. The engineers were likely to see managers as more concerned about cost or more superficial in their judgment, and the managers were will be the engineers is likely to go into too much detail.

So, this like difference in perception will be there, like the engineers we think like they were more into thinking of the cost part and they were thinking like they are more into engineers, thinking like the managers were more into cost part of the engineers were perceived as going maybe too much into unnecessarily details. So, these differences of opinion will be there. In the customer-oriented companies, the customer satisfaction is the main objective. So, they replaced the internal standard of the quality-oriented companies with an external standard of satisfying the customer. So, therefore, in these companies so in engineers quality concerns a firm may have conflicted with managers' desire to please the customer.

So, in order to please the customer I mean promise a quick delivery of the product, but in like doing that quick delivery maybe I compromise the quality also to some extent which is maybe ok for the managers in order to retain back the customer. But it is not ok for the

engineers and that is where so in these companies the engineers quality concerns conflicted with the managers desire to please the customer.

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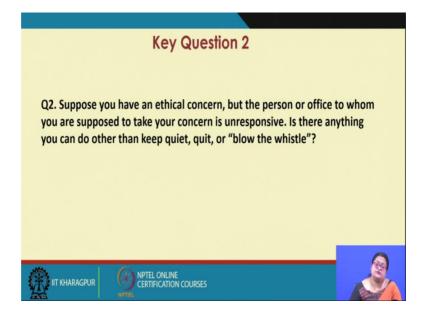


Again, in finance-oriented companies, the desire to maximize maybe the number of units shipped conflicted not only with the engineers concerned for quality, but also with other ethical standards. Like event, like they were asked to adjust test results so that they it meets, like the product needs the customer specification: Soso, even if they have not; like actually passed the test.

So, what we find like the finance oriented companies could be like in have conflict of interest with both the quality-oriented company and the customer-oriented company. So, they were like in order to ship more, they not only conflict to the engineers concerned for detail quality check, detail testing etcetera, but it likes where somewhere like adjusting test results; so that it appears to me praiseworthy is like we are playing with the relationship of the company with the customers in terms of the trusted trustworthiness.

So, if we find like the three orientations of the companies whether it is quality oriented, whether it is finance oriented, customer oriented are like in contrast with each other, the biggest question lies over here; then, when and who, how to bring the balance, what can be done to bring the balance.

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So, when you are talking of how to bring the balance over here; so what we can do? We can see the thread of understanding like whenever we are talking of quality. It is not only the quality of the product, it is also the quality of the service are taking the customers into our decision like if we are like going for like good quality things, then they have to use it in the way that is desired. And if these quality things needs to be done properly, then it requires time to be invested for going through the details of quality checks of each and we cannot like go on producing like batches after batches without doing a proper testing of it.

So, if you talk totally under financial orientation like we have to produce more; yes, we can do nothing wrong in it, but for that we cannot compromise on the quality or customer satisfaction part because, if we are focusing on the quality part then only we can look to the customer satisfaction. So, if and again if you are looking at both, then we need to give customized attention to the like customers and their needs and try to like invite those things in a design part and which may be like, cannot be like go on producing more and more which is the may be so that we are more profit which financial orientation. So, all these things needs to be balanced.

Now, we are will going to discuss the <u>Key key Question question 2</u>; like it some sometimes it happens like you have an ethical concern, but you find that when you are talking to the person or the office to whom you are supposed to take your concern is very

unresponsive of your concerns. So, like generally we think of three ways like I were to keep quiet or to quit or to blow the whistle. But are there any ways beyond these three things like even quite, quitting or blowing the whistle like which we can do to see like to solve this issue or to like answer this question.

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So, if when you are talking of complaint procedures; so, it may sound vaguely repellent because of the negative connotation of the term complainer, but like when you are talking of complaint procedure, it is a general term for the procedures by which organizations ensure the ability to hear inconvenient truths. So, what happens? So, this is like through this if there is a complaint procedure.

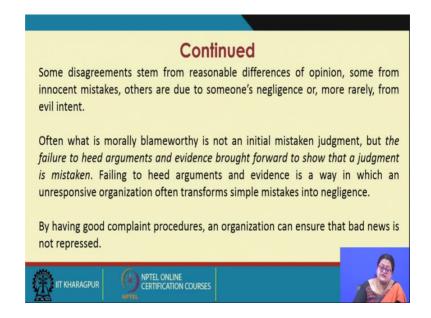
So, in some truth may be uncomfortable for us, but we need to have your like sense organ, open ears open to listen to it also. Complainant is rather than the term its complainer is used for someone who uses such procedures. So, frequently the occasion for complaint by an engineer is a difference in judgment rather than the accusation of Malvinas.

So, what we find like if there is a difference in opinion, difference in judging particular situation. So, looking at one thing from a different perspective, then boys embrace it to the complaint procedure because we understand like the engineers having; because we understand like the engineers having a professional knowledge, competency like in depth knowledge about a particular subject matter. They are more proficient in responding to

certain issues, they have a different perspective of looking in certain issues which the others may not have, which their professional knowledge equips them with.

So, there may have a difference of opinion of looking at a particular problem from a perspective which others may not have because they cannot then sense further like long term issues related to the maybe the situation at hand.

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So, as we are discussing, some disagreements team from reasonable differences of opinion, some from innocent mistakes, others are due to someone's intelligence or more rarely, from evil intent. So, there could be differences in opinions from like mistakes from someone's negligence or for more like from really from evil intent also.

So, what we find think this could be a difference of opinion between the two parties, when you are talking after maybe the managers are the engineers. Often what is morally blameworthy is not an initial mistaken judgment, but the failure to heed documents and if it is brought forward to show that the judgment is mistaken.

So, this is where it is the moral and blameworthy things happen. So, it is not like see mistakes can be by everyone. So, it is not that someone like if mistake is there, it is something which is like it is very very great something some sort of crime that has been done. But when you have done a mistake and but you are not open to accept it, if you are

not open to like take care heed for the arguments and proof shows that maybe the judgment that you were taken has been mistaken.

So, if failure to recognize those arguments and evidence; so, that is where maybe the morally blameworthy know, things becomes more important which is not the mistake; yes, definitely mistake we have to be careful. But if we like accept our mistake and we like answer pay heed to the arguments and listen to it carefully, try to take care of our mistakes; so that it does not get repeated in it; that is what is required. But if we are just trying to like low, put the things in a low key by telling like it was a like not our fault and all these things and if you are not taking care of it, if your remaining unresponsive to it. So, one day that sound simple mistake may result in bigger negligence that is what is morally blameworthy.

So, by taking like good complaint procedure; so, organizations can ensure like the bad news is not ah repressed. So, what happens like if I find I have not given the avenue to speak, nobody is listening to me on it. So, what we will do I will keep quiet about it, but if the organization gives up I mean, you for doing it. So, what we find bad news will not be repressed rather to be expressed and we can always learn from it to correct and improve on our processes. So, that is how it is going to act in a much better way.

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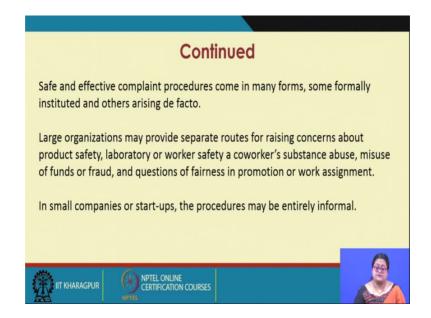
But again, what we find like sometimes complaints could be not very ethically sound; it could be not well; not ethically sound or not well founded in our very grounded in the

theory or experience. So, how do we do sometimes people feel they are more emotionally involved when making a complaint. So, what do we do about so that type of complaint. Here, in this particular module, we are exactly discussing like both the sides of a particular problem. In the sense, like if like if the company is neglecting a particular complaint and what is the issue? If the person who is making the complaint, how do we know like he is making a particular complaint which is ethical in nature or not.

So, this type of every problem has two sides of it and we need to consider all the sides. So, what you find like that all the complaints are ethically significant. So, the ethics officer of a high tech company like to like most of the company complaints that came to her office were about the food in the cafeteria. So, engineers who have worked the company assured that the food at the company is not bad. So, however, food is something which regularly people complain about. So, actually in the guise of the food like scattered among the food complaints are matters that really require the attention of the ethics office.

So, what we find over here like maybe the case that we have been talking of is the complaint that is made in every case may not be ethically well founded. But if it is related to some other major issues, then we need to go to the like deep of it to find out the root cause and then try to solve that problem, like we find food is maybe one very common complaint about. But if we see you can go to the details of it, it may be regarding some procedures which need to be focused and changed.

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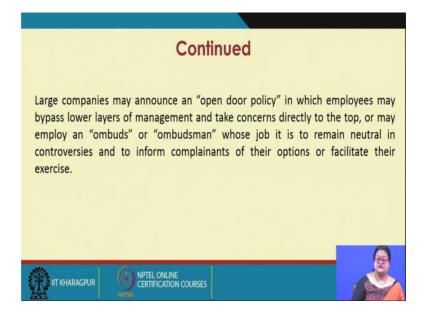


So, next what we are going to see like the consequence is the safety part like what is the effectiveness and the safety of the complaint procedures. So, if whether it is institutionalized or not or like so, safe and effective complaint procedures come in many forms, some formally instituted others arising de facto.

So, for the large companies that may provide a separate route for raising the concerns about product safety, laboratory, then worker safety, workers abuse, misuse of funds etcetera so and the questions of fairness in promotion or work assignments. So, this like whether when we find that the company has already established itself, we may have a complaint root or a grievance redressal procedure which is a separately maintained to work on the complaints for sake.

But for small companies which are startups so, there may not be a separate channel for it, but there could be a mental setup, mentality to recognize his complains, listen to it carefully and. So, these procedures could be entirely informal, where there is some trustworthy person and as a representative of the organization and the employees are going to speak out their heart in forefront of that person.

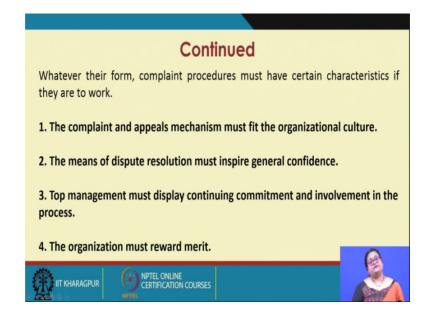
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So, large company may suggest for an open door policy in which employees may bypass lower layer management to take concern to the top. So, who like who are like looking in the (Refer Time: 30:02) or "ombudsman" whose job it is to remain neutral to the controversies and to whom the complainants of their which talk of their; their role is like that of a bridge. So, whose job is to remain neutral and to the controversies that you inform the components of the options or facilitate the action so, exercise?

So, ombudsman people are like the bridge in between which tries to like take the concern of both the parties together, we meet them like put them collectively in a common platform. So that, each one can understand the other person's viewpoint and maybe like inform the complainants about the status. And of their options and they are like facilitate and exercises for like relating to the higher authority or management.

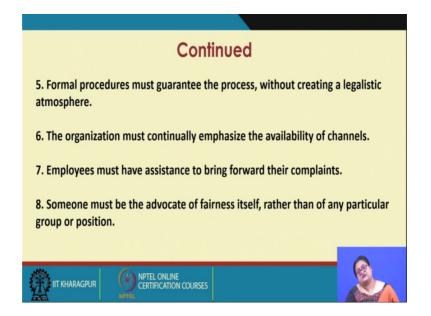
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Whatever be their form, the complaint procedures must have certain characteristics to work. So, it must the complaints and the appeals mechanism, must fit the organizational culture.

So, the means of how the dispute resolution is done it should inspire general confidence. Top management made display continuing support and involvement in the process, the organization must reward merit.

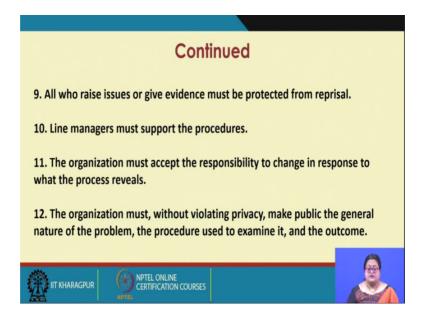
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The formal procedures must guarantee the process without creating a legalistic atmosphere, the organization was continuously emphasized the availability of channels. Employees must have as assistants to bring forward their complaints; someone must be the advocate of the fairness itself, rather than of any particular group of or position.

So, what we find over here like the organization should have all facilitated a mechanism. So that employees can report about these practices and they must have some channels which are available; they must have like a mental setup to assist the employees in bring the issues forward. And there some person who is not linked to any group or position like in is an independent ethics officer, who like the advocate of what is fairness and if it is and what is fairness and what are the procedures involved in it and who is responsible for it.

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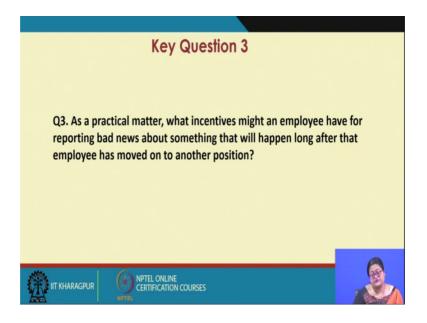
Like then, another very very important point is one who is raising the issue, giving the evidence should we protect it from reprisal. Line managers would support their procedures. The organization must accept the responsibility to change in response to what the process reveals.

So, if the process reveals any discrepancy between a present like you present functions ways of doing things and they are required things then the organization was with flexible, must be open enough to change it with respect to the processes that is getting reveled. So, organization must, without violating privacy, make public the general nature

of the problem, the procedure used to examine each and the consequences at the outcome.

So, without variety in the privacy, the organization must share to the outside world like of the nature of the problem. So, how the procedure was taken to solve it and the outcome? So, this is going to establish a bridge between the organization and the customer such a large and also it helps to develop trustworthiness.

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We will come to the Key Question 3; which is like, which is the incentive which matters most when like the employee is going to report a bad news. So, what incentive is going to like encourage people to report bad news about something that is going to happen long after the complaining in the company, before the examiner has moved to other position?

So, it will so happen like the what, why should I go and complain? I would do by the time this will get me resolved; I will no longer be in that post. So, what should I do should I go and complain or not? So and what if so, what is there in me, what are the incentives that I need to have so that I am going to complain? So, this we are going to take up in the next session.

Thank you.