as after cutain

design completed call up contractor

bid.

Novation Integrated system Evaluation of Novation contract innovative. Associate Professor Albert PC Chan Department of Building and Planning The Hong Kong Polytechnic University 2 Definitions - Oxford Dictionary Novation: Substitution of new debtor \* contract for former one Architect make new Royal trustvalia Intitution of Agreement 3-5 bidders. after horation recent t after horation: client (> Contract) 3 🗆 Definitions - RAIA \* a form of design and construct agreement \* the client initially employs the consultant team to prepare 30% -80% overall design before calling tenders from building design consultant work for client, then work for is then novated to the contractor who tall . the consultant team is then novated to the contractor who takes responsibility for the project to completion Novation: hew box to achitec design & build design tlam Definitions - in simple terms convactor win the job, do remaining \* the client engages design consultants to create a suitable design proposal denim work, take fr + the consultants then develop the design in detail to the client's requirements responsibility of the \* before the design is fully documented, the proposal is tendered out to selected original previous de \* the winning contractor will work out the remaining design with the consultants the contractor accepts responsibility for the full design and contraction of the building \* the contractor is also required to hire the client's design consultants, hence the name novation contract contractor accept responsibility for full design, consultant contract and design consultant 15 Characteristics - 1 \* the services of the design team are, though originally rendered to durin consulta the clients, novated to the contractor contractor (employer) take mithuetton, . the design team will serve the contractor and be paid by him object contract contractor take freat hisk; ho origin of novate - you have a new boss feasibility on original \* there is a significant risk shift to novation contractor design. \ 6 Characteristics - 2 the contractor assumes legal responsibility for the adequacy and the effectiveness of all design + including the design that was produced for the client by that design team under their initial engagement the design does not need to be fully complete before tendering design and construction phases can proceed concurrently once the contractor is can facilitate \* the contractor can have some involvement in the design of the building fart -tracking, b 7 Characteristics - 3 longer time requir

Novation contract: mixture of madilines milen & DB system
(by brid)

Digital design
-dient gives instruction => better satisfy client's requirement therelieff has greater influence in design than in the design and build system D4 B, NC Submit the client is given a firm price for the design and construction work The client may invite a number of contractors to tender, ensuring competition design maposal of the work

single point respondility Pre-novation stage like traditional system

\* the consultants submit alternative design concepts until the client finds one that he client control on design more than Db, retain the acceptable design is documented, designed and detailed up to certain stage before design quality direct face for face contractors are invited to tender

\* the contractors tender for the project

 the contractors discuss with the design team the methods of construction and work out a design proposal for the unfinished aspects of the project with the client's

\* the novation contractor is the only one with direct contractual links with the

contractor no freen 🗇 Pre-novation contractual pattern (P.7.0.) Choose deign consul 10 10 Postshavationestage like DB system

\* once the contract has been novated, the contractor hires the consultants Must accept trigmal \* the consultants are paid by the contractor instead of the client, and their first point deign comme

of loyalty is to the contractor

they form a project team that designs and constructs the building

\* the remaining undefined design is documented and let out to tender in subcontract packages, while construction proceeds

simple design Post-novation contractual pattern U.T.O.) 12 Assessment on time critism DB only suitable for factorised howing not know about design, concern only

\* allows a fast track approach hence faster than procured by mildability Now NC: client retain hipinal design, crea traditional system

contractor's \* allows shorter project duration and an early commencement of business infraence client input allowed construction

13 Assessment on cost client prepare to pay more

\* the firm price assures the client of his financial commitments

competition assures reasonable tender prices

. however the tender bids may be inflated

\* contractors may consider the risks of accepting responsibility for the accuracy of someone else's design

14 Assessment on quality

\* the client and his consultants have direct control of a substantial part of the design phase

\* the design may show more originality and aesthetic appeal than the design and

+ however at the post novation stage, problems arise as to who is responsible for the quality control and supervision of the project

15 Assessment on accountability.

 the contractor is to accept full responsibility of both design and construct. there is only one person to blame

Enitable for economic depression, decline of construction industry.
1995 - Slaughter house in Sheng sheri (ALD) 1st project



 however communication between the client and the consultant team is lost at post novation stage the novation contractor may pass some of the design work and responsibility down to the specialist subcontractor \* novation is almost pyramided down 16 Advantages - 1 \* fast track system can be implemented the amount of documentation and detailing may be less demanding \* team-members are familiar with each other \* selective competition can ensure that tenders are priced reasonably \* the client can selection the basis of the design proposal as well as others = Lower price: less design work by I tenderer and less aboutive 17 🗖 Advantages - 2 \* the client has a firm, guaranteed price for the work the contractor takes full responsibility for all aspects of the building work · lines of communication between the contractor and the client are direct the client can impose more emphasis on the design content designers can introduce more imaginative and aesthetically appealing client has more control on the design rather than accepting a completty \18 Disadvantages - 1 new desten ### the contractors accept the contractual risk should the consultant's design be unworkable or deficient principal permittal sec \* contractors may inflate overall tender price to cover the additional risks \* quality assurance and supervision of the project may be inadequate \* the direct communication between the client and the design team is lost at the post novation stage 19 🗀 Disadvantages - 2 + all subcontractors will be appointed by the contractor. Hence the client's privilege and benefits of bargaining a lower price will be taken away the contractor may force the specialist subcontractors to accept the risk of design work only a limited number of companies with a proven record of both designing and \* after novation, the consultants are paid by the contractor. This may disadvantage the consultants as the contractor, may not be as financially stable as the client 20 Typical uses · suitable for large projects where they demand: -a fixed timetable and budget for the project -a fast track assembly -control over important aspect of the design work responsibility of the design and construction rests with the one contractor 121 Aisk allocation - the client \* 'single point' responsibility releases client's risk on the origin of \* overlapping of design and construct reduces risk on time overruns \* price certainty as a result of lump sum tendering reduces risk on - Architect may not express Their real feelings as Contractor is the boss now and

employer's tuterest may be neglected

· greater risk of poor quality because of lack of supervision opportunity of changes is restricted 22 Tisk allocation - the contractor \* assumes all responsibility and cannot claim for design omissions, ... etc. from the pre-novation stage bears the single point responsibility \* has to accept contractual risk as to the performance of design consultants 23 Risk allocation - design consultants \* contractor may not be as financially stable as the client a new boss-subordinate relationship with the contractor may create a difficult adjustment if the consultant has never worked with the contractor before 24 🗇 Industry perception - client LOGICAL MILE - AND « a wide ranging opinions e all considered novation was a practical procurement system but would be selective where it was used \* in general they considered novation would facilitate transfer of most risk to the but the up-front premium and possible inflated price may not result to the most cost effective alternative 25 Industry perception - design consultants \* some felt that having the contractor as the boss was rather difficult \* most did not see it a too onerous demand \* did not express concerns at the problems with respect to payment 26 🗇 Industry perception - contractors large contractors see it as a great opportunity and support its use they can display their superior management skills and gain a market edge over their they also enjoy a direct financial rewards by introducing innovative design measures to improve constructability effort to administer variations can be reduced significantly \* small and medium contractors express great concern on the additional risks of design warrant, cost and time management of the project

RTSK