

بررسی مقایسه ای روشهای کنترل و پایش ریسک پروژه ها

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چکیده :

واژگان کلیدی : مدیریت ریسک پروژه، پایش و کنترل ریسک.

۱- مقدمه

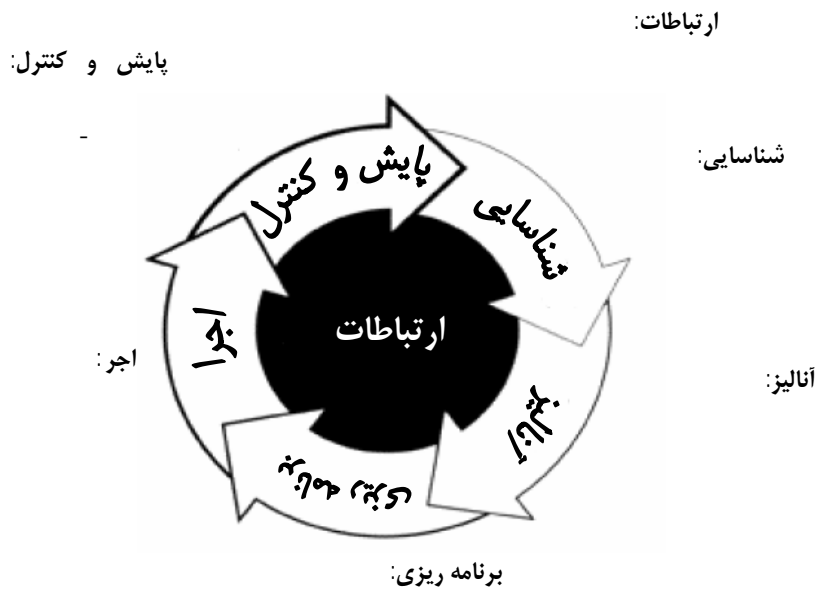
[]
()
[]
[]
(Systematic) (Holistic)
(RMP)
[]
[] RISKIT [] SHAMPU [] PUMA [] PRAM
() [] PMBoK [] CRM [] RAMP
(Terminology)

۲- پایش و کنترل ریسک چیست ؟

[] (CRM)

(())

[] CASDU



شکل (۱): نمونه فرآیند مدیریت ریسک

[] PMBoK

[]

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۳- ابزارهای پایش و کنترل ریسک

()

- شاخص ها :
- نمودارها :
- نوشتارها :



شکل (۲): مسیر تقریبی مفهوم کاربردی ابزارهای پایش و کنترل ریسک

۳-۱- شاخص های شمارشی

[] (OPR) []
 []

$$OPR = \frac{\text{[]}}{\text{[]}}$$

[]

۳-۲- اهرم کاهش ریسک (RRL)^{۱۳}

(Cost-Effectiveness) []

$$RRL = \frac{\text{[]} - \text{[]}}{\text{[]}}$$

RRL

[]

RRL

۳-۳- ارزش خالص اقدام (NVT)^{۱۴}

$$NVT = EVU - EVR - EVS - TC$$

}	(Primary Risk)	= EVU
	(Residual Risk)	= EVR
	(Secondary Risk)	= EVS
		= TC

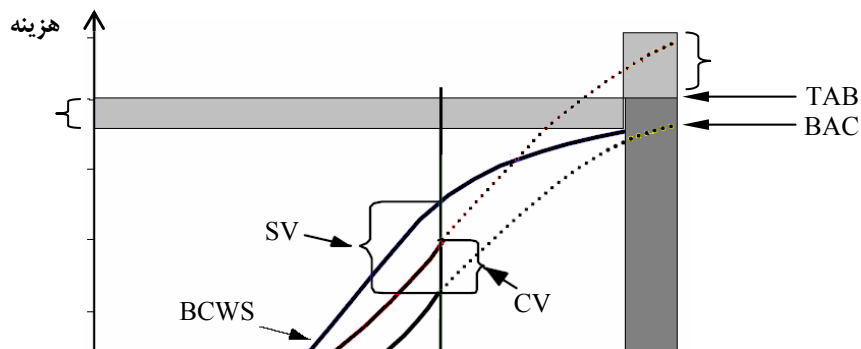
۳-۴- مدیریت ارزش کسب شده (EVM) ۱۹

()
(WBS) .[]

[]

جدول (۱): برخی از ارزش های کسب شده (علامت Σ بیانگر مقادیر تجمعی می باشد)

توضیح	فرمول	نوع	سرنام لاتین
	-		BCWS
	-		BCWP
	-		ACWP
	BCWS (Last)		BAC
	BAC + MR		TAB
BCWS	ΣBCWS		PMB
()	BCWP-BCWS		SV
()	BCWP-ACWP		CV
SV	SV / BCWS		SVP
CV	CV / BCWP		CVP
()	BCWP / ACWP		CPI
()	BCWP / BCWS		SPI
	ΣBCWS / BAC		Schedule %
	ΣBCWP / BAC		Complete %
	ΣACWP / BAC		Spent %
[]	CPI * SPI		CR

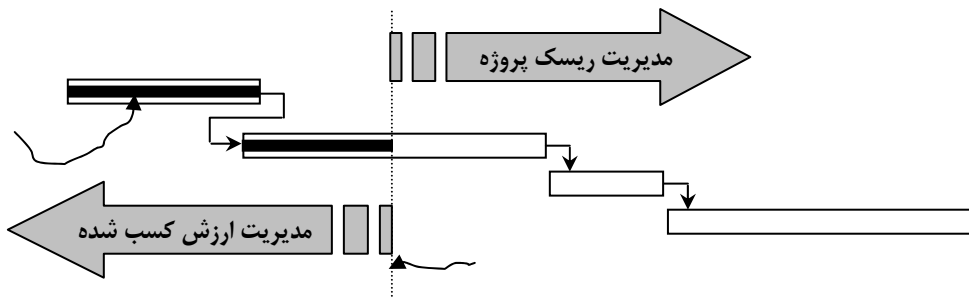


شکل (۳): ارزشهای کسب شده در یک نگاه

() []
 () []
 []

(())

[]



شکل (۴): یکپارچه سازی مدیریت ریسک پروژه و مدیریت ارزش کسب شده

۳-۵- سنجش عملکرد تکنیکی (TPM)^{۳۴}

[] DoD

()

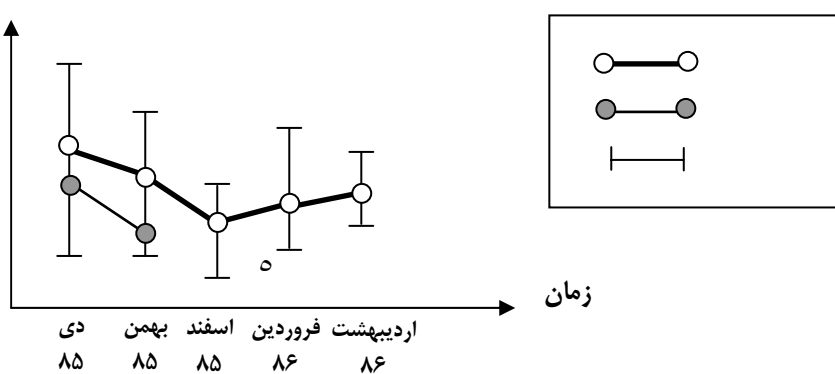
(TPM Tracking Chart)

(TPM)

[]

([])

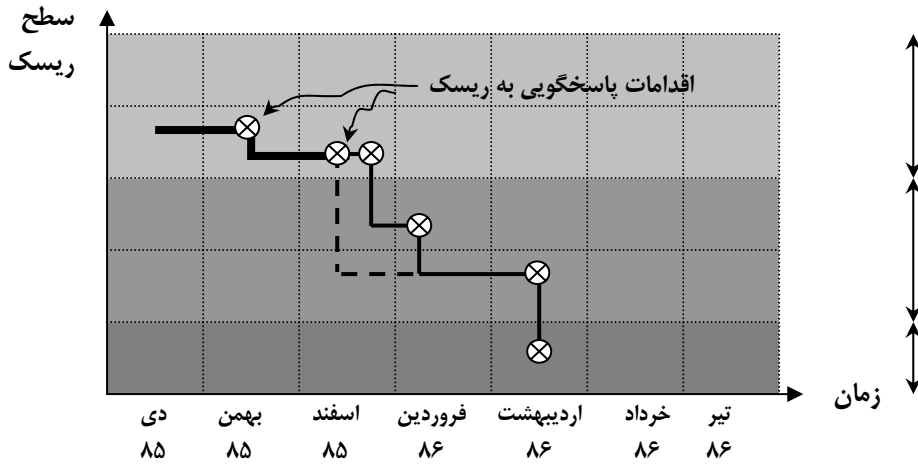
ارزش پارامتر تکنیکی



شکل (۵): نمودار تعقیب سنجش عملکرد تکنیکی

۳-۶- نمودار آبخار ریسک^{۳۶}

(Accepted Level) (Proactive) [] []
 () ()



شکل (۶): نمودار آبخار ریسک

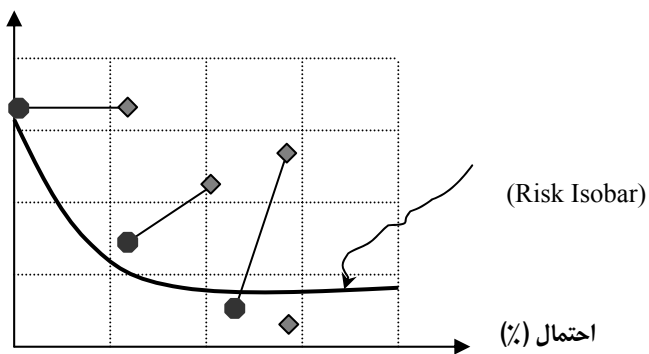
۳-۷- نقشه ریسک (Risk Map)

() ()

[]

[]

اثر / بازده (-/+)



شکل (۷): نقشه ریسک پروژه

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[]

()

()

	دی ۸۵	بهمن ۸۵	اسفند ۸۵	فروردین ۸۶	اردیبهشت ۸۶
ریسک ها			▲		
				▲	
		▲			
.....					
پاسخ ها					
		■	■	■	■
			■		
		■			
			■		
.....					
	■		■		▲

شکل (۸): گانت چارت ریسک ها و پاسخ ها

۳-۹- نمودار سناریوهای ریسک (RSD) ۳۷

[]

- Risk Factor)

(Risk Scenario)

- Risk Event)

(

(

- Risk Reaction)

(

()

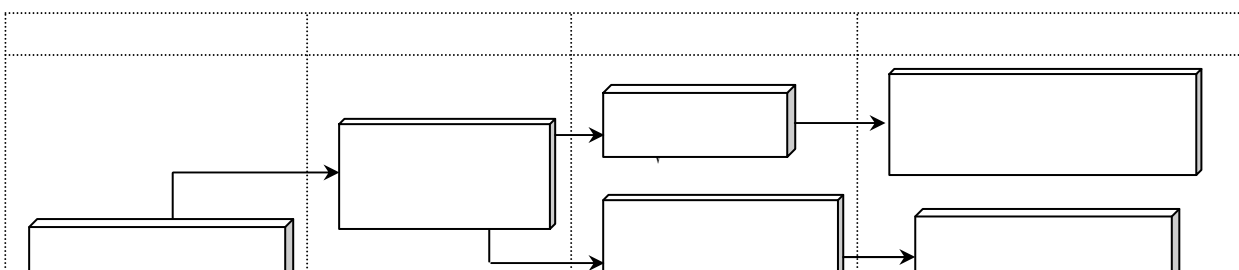
[]

(

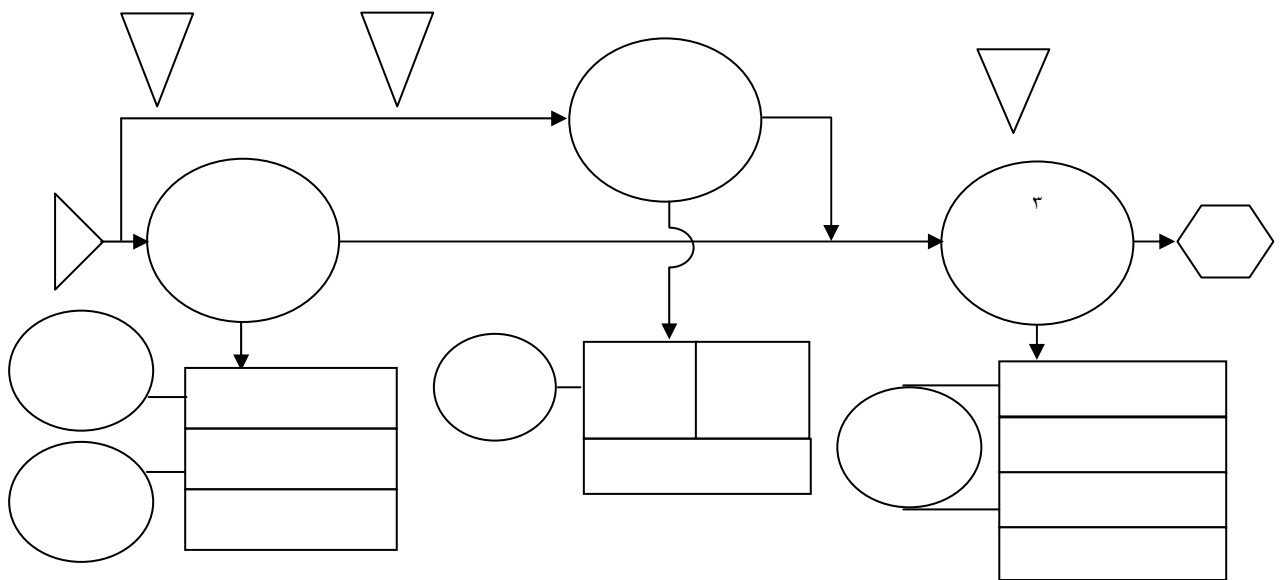
- Risk Effect)

" :

"



شکل (۹): نمودار سناریوهای ریسک



شکل (۱۰): نمودار ریسک - پاسخ

۳-۱۰-۳۸ نمودار ریسک - پاسخ

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۳-۱۱- فرم ثبت ریسک^{۳۹}

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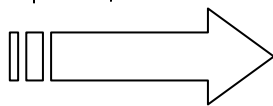
[]

(DSS)

۳-۱۲- فرم پیگیری ریسک^{۴۱}

[] ()

شناسایی ریسک		آنالیز ریسک					پاسخگویی به ریسک				پایش ریسک		
#													



شکل (۱۱) : نمونه ای از یک فرم پیگیری ریسک

۳-۱۳- لیست نظارت (Watch List)

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[]

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توضیحات	تاریخ تکمیل	شروع اقدام	کد اقدام	اقدامات پاسخ	ناحیه بحرانی
		/ /	CM-		•
		/ /	CM-		•
		/ /	PA-		•
		/ /	PA-		•
		/ /	PA-		•

شکل (۱۲): نمونه ای از یک لیست نظارت

۳-۱۴- چک لیست

() []

<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		

شکل (۱۳): چک لیست انجام مدیریت ریسک

۳-۱۵- گزارش

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) []
) (...) (...) (...)
 () (...) (...)

۴. ارزیابی ابزارهای پایش و کنترل ریسک

()

[]

۵. جمع بندی

[]

قدردانی

WWW.PMIR.COM

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١ Risk Management Process (RMP)	٢ Project Risk Analysis and Management (PRAM)
٣ Project Uncertainty Management (PUMA)	٤ Shape, Harness, And Manage Project Uncertainty
٥ Risk Kit (RISKIT)	٦ Risk Assessment and Management Process (RAMP)
٧ Continuous Risk Management (CRM)	٨ Project Management Body of Knowledge (PMBok)
٩ California State Disbursement Unit (CASDU)	١٠ Risk Response Audit
١١ Periodic Risk Review	١٢ Overall Project Risk (OPR)
١٣ Risk Reduction Leverage (RRL)	١٤ Net Value of Treatment Option (NVT)
١٥ Expected Value of Untreated Risk (EVU)	١٦ Expected Value of Residual Risk (EVR)
١٧ Expected Value of Secondary Risks (EVS)	١٨ Cost of Risk Treatment (TC)
١٩ Earned Value Management (EVM)	٢٠ Work Breakdown Structure (WBS)
٢١ Budgeted Cost of Work Scheduled (BCWS)	٢٢ Budgeted Cost of Work Performed (BCWP)
٢٣ Actual Cost of Work Performed (ACWP)	٢٤ Budget At Completion (BAC)
٢٥ Total Allocated Budget (TAB)	٢٦ Performance Measurement Baseline (PMB)
٢٧ Schedule Variance (SV)	٢٨ Cost Variance (CV)
٢٩ Schedule Variance Percent (SVP)	٣٠ Cost Variance Percent (CVP)
٣١ Cost Performance Index (CPI)	٣٢ Schedule Performance Index (SPI)
٣٣ Critical Ratio (CR)	٣٤ Technical Performance Measurement (TPM)
٣٥ US Department of Defense (DoD)	٣٦ Risk Waterfall Chart
٣٧ Risk Scenario Diagram (RSD)	٣٨ Risk Response Diagram / Source Response Diagram
٣٩ Risk Register Form	٤٠ Decision Support System (DSS)
٤١ Risk Tracking Form	٤٢ Risk Management Completion Checklist