

Video Game Design

Chapter 5 Game Evaluation

Witcha Feungchan

How can we know is a game “good” or “bad”?

- Game industry reviews
 - Usually based on expert reviews (opinions)
 - Reviews are done after games are released
 - Game scores are used to reflect user satisfaction and “fun”

Killzone 2

By Patrick Shaw February 03, 2009 09:56 AM PST

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Almost four years have passed since Sony first unveiled Killzone 2, their vastly darker answer to the Halo franchise. In gaming terms, four years is an eternity, but Guerilla Games' gritty shooter is finally here to deliver a kickass experience that more than rewards us for our patience. Killzone 2, with its face-meltingly intense campaign and robust multiplayer, exceeds the expectations set forth by the original game and the tremendously ambitious E3 2005 trailer. It's still early, but this one already reeks of shooter of the year.

THE VERDICT by Patrick Shaw



Gamers have been waiting for the follow-up to the vastly underrated Killzone for a while now but the folks at Guerilla used the time wisely, crafting an amazing FPS game that PS3 owners can crow about. With top-notch graphics, fantastic single- and multiplayer modes, Killzone 2 has pretty much everything a PS3 shooter junkie could need.

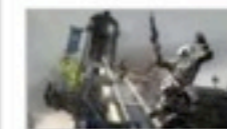
GamePro Score ★★★★★ **User Score** ★★★★★
4 average rating from 45 votes
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Killzone 2 | PS3

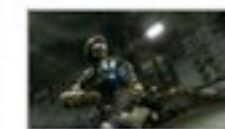


Release Date: [Feb. 27, 2009](#)
Price: \$60.00
Publisher: SCEA
Developer: Guerrilla Games
Platform(s): [PS3](#)
Genre: [Action](#)

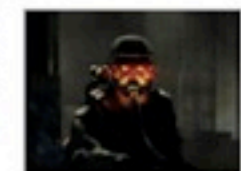
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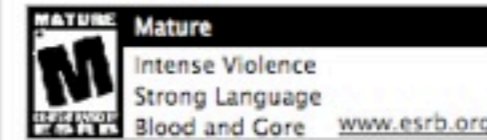
12 screens



4 screens



10 screens



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GamePro Score ★★★★★

User Score ★★★★★
94 votes



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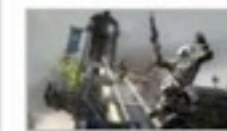
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Killzone 2 | PS3

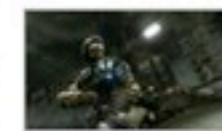


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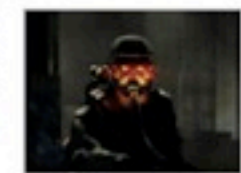
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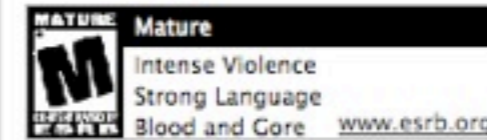
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Buy It Now
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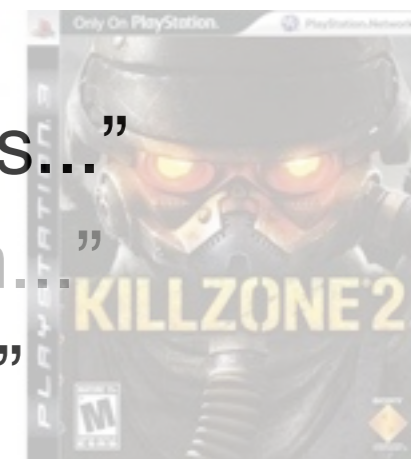


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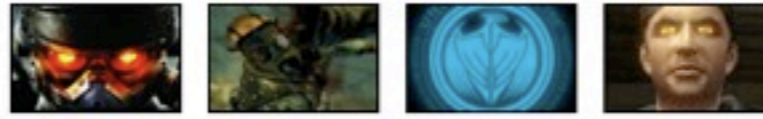
GamePro 100
GameSpot 90
GameInformer 88

“fantastic single- and multiplayer modes...”
“amazing visuals, an intense campaign...”
“the best-looking shooter on the PS3...”





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THEME: a a



Killzone 2

- SCEA
- Guerrilla
- Sci-Fi First-Person...
- Release: Feb 27, 2009 >
- ESRB: Mature

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Summary

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Killzone 2 Review

Killzone 2 boasts amazing visuals, an intense campaign, and extraordinary online play that will keep you coming back for more.

The Good

Well-paced campaign keeps you in the thick of action • Great online play constantly rewards you • Intricate, balanced multiplayer maps • Weapons are beefy and fun to shoot • Visually stunning, both technically and artistically.

The Bad

Forgettable story and characters • Tacked-on motion controls.

That action is enhanced by groundbreaking visuals that elevate Killzone 2 to the head of its class. Both technically and artistically, this is a real stunner. You'll first notice the obvious expressions of its technical prowess: environments jam-packed with objects and textured architectural details, pipes and crumbling rebar jutting from dilapidated buildings, and gorgeous lighting that drenches market squares and sandy battlefields with an

GameSpot Score

9.0

Editors' Choice

About the rating system >

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Critic Score
50 reviews

9.1

User Score
1,325 vote

9.2

Your Score
slide to rate

N/A

Review the Game

Game Emblems

The Good

See All (8)



The Bad

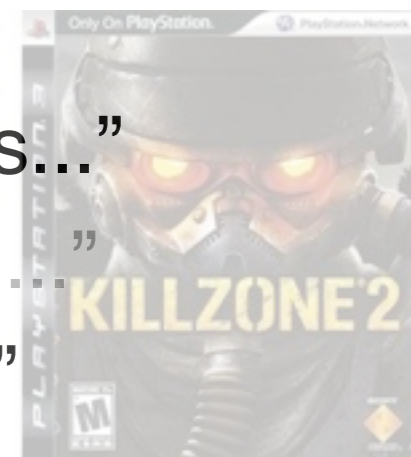


GamePro	100
GameSpot	90
GameInformer	88

“fantastic single- and multiplayer modes...”

“amazing visuals, an intense campaign...”

“the best-looking shooter on the PS3...”



Killzone 2

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THE BIG LEAGUES

Killzone 2 is the best-looking shooter on the PS3, which puts it in the running for best looking shooter ever. Even better, the game doesn't fall back on its visual splendor, but offers tense, polished gunplay that sets it beside the other great console combat games. The campaign is a machismo-laden chest thumper, with a story that exists largely to move the character from one impressive locale to the next. A frequently intense but occasionally frustrating multiplayer component fleshes out the experience. With the exception of its stunning graphics, Killzone 2 doesn't do a whole lot that you haven't seen before in other titles. But what it does do, it does with aplomb.

The first Killzone involved an invasion by the vicious, red-eyed Helghast onto the planet of Vecta. This sequel turns the

bottom line

RATING PENDING
RP **8.75**
Visit www.esrb.org or call 1-800-771-0769 for more info
 CONTENT RATED BY
ESRB

CONCEPT:
 Continue the war against the Helghast in the best-looking shooter on the PS3

GRAPHICS:
 Phenomenal visuals shine a spotlight on this system's capabilities

SOUND:
 Sound effect work is a standout success, while the constantly shouted voice acting leaves a little to be desired

PLAYABILITY:
 Numerous control schemes and the clean only-shows-up-when-needed HUD are both welcome

ENTERTAINMENT:
 Intense, frantic, and technically polished, this is a great addition to Sony's lineup of exclusives

REPLAY:
 Moderately High

IV
AVAILABLE NOW!

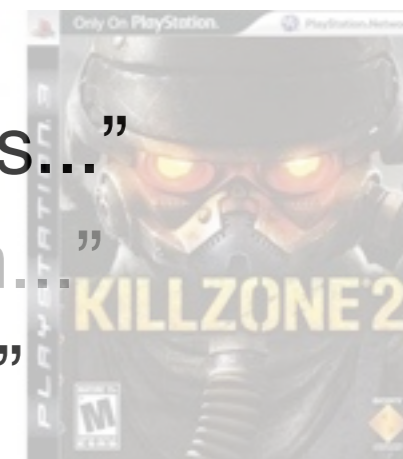
STREET FIGHTER IV
CAPCOM
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“fantastic single- and multiplayer modes...”

“amazing visuals, an intense campaign...”

“the best-looking shooter on the PS3...”



How can we know is a game “good” or “bad”?

- Formal analysis
 - Analysis can be done in every stages of game development
 - Provide only factors for game design
 - Lack of evaluation method

Academic References (excerpt)

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Game Evaluation

- There are a lot of game evaluation systems and reviews from game industry but little research in academia.
- We created our **game evaluation model** from collected information of both industry and academia.
- An experiment was conducted to find an evaluation model that can be used to justify and distinguish between “good” and “bad” games.

Evaluation Analysis

- 59 evaluation factors
 - From game industry and game academia
 - From 5 groups (game interface, gameplay, game mechanic, immersion, and social interaction)
- 60 games as the sample
 - From various game genres (action, adventure, role-playing (RPGs), simulation, strategy, and puzzle games)
 - From various game platforms (game consoles, portable gaming devices, computers, PDAs, and mobile phones)

Evaluation Analysis (cont'd)

- Internal evaluation
 - One expert evaluated and gave the scores for all samples.
- External evaluation
 - The overall game scores for all games were taken from a reliable source (www.metacritic.com).



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- 64 AC/DC Live: Rock Band Track Pack
- 66 Afro Samurai
- 68 Alone in the Dark: Inferno
- xx Astro Tripper
- 67 Battle Fantasia
- 70 Bejeweled 2
- 60 Bolt
- 70 Burn, Zombie, Burn!
- xx Burnout Paradise: The Ultimate Box
- 85 Call of Duty: World at War
- xx Command & Conquer: Red

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Killzone 2

PS3



Critics:
91 Universal acclaim
metascore out of 100

Users:
8.5 out of 10

based on 71 reviews
[Read critic reviews](#)
[How did we calculate this?](#)

based on 210 votes
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Two years after the Helghast assault on Vekta, the ISA is taking the fight to the enemy's home world of Helghan. The ISA goal is direct: capture the Helghast leader, Emperor Visari, and bring the Helghast war machine to a halt. Assuming the role of Sev, a battle-hardened veteran and a member of the special forces unit known as the Legion, players lead a group of highly trained soldiers on a mission to take out the Helghast threat. For Sev and his squad, the invasion of Helghan is just the beginning. Tasked with securing Pyrrhus, the Capital City, the team quickly discovers that the Helghast are a formidable enemy on their home planet. Not only have they adjusted to the planet's hostile conditions, they have also harnessed a source of power they can now use against the ISA. Sev discovers his squad isn't just fighting enemy forces – their fiercest opponent may be the planet itself. [Sony]

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[Killzone: Liberation](#)

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Also On The Web

[Kotaku Review](#)
[Official Website](#)
[Predict this Metascore](#)

PUBLISHER: Sony Computer Entertainment America

DEVELOPER: Guerrilla

GENRE(S): First-Person Shooter

PLAYERS: 32

ESRB RATING: M (Mature)

RELEASE DATE: February 27, 2009

Critics:

91

Universal acclaim

metascore out of 100

based on 71 reviews

Users:

8.5

out of 10

based on 210 votes

100 GameShark

Because i[t] successfully brings together a compelling single player campaign and fully realized multiplayer experience, Killzone 2 emerges as a new benchmark for the shooter genre. This is a game that leverages an atmospheric presentation and superb game design for something memorable and lasting. To quibble about a lack of cooperative play through the campaign or the omission of some other feature is to miss the point: Killzone 2 is meant to be a carefully laid out epic. It is a must-have game, a brilliant start for the year, and among the best games of this generation.

[Read Full Review](#)

99 MEGamers

Killzone 2's secret ingredient is the fluidity in gameplay that we have come to enjoy more than its graphical prowess or jaw-dropping visuals. And that's what games have always been about... We're surprised to see Killzone 2 blows our expectations out of the water with a memorable SP campaign and a stellar MP component. To put it short, this game makes "Gears of War 2" look like a high school attempt at gaming and that is a HUGE compliment!

[Read Full Review](#)

97 PSX Extreme

Ultimately, we have a game that strikes the perfect balance between a single-player and multiplayer experience. Where almost all current FPS games boast a multiplayer component that is far and away better and more satisfying than the single-player experience, Killzone 2 boasts a single-player campaign that is every bit as much fun as the multiplayer - and that is truly a rarity.

[Read Full Review](#)

www.metacritic.com

Evaluation Analysis (cont'd)

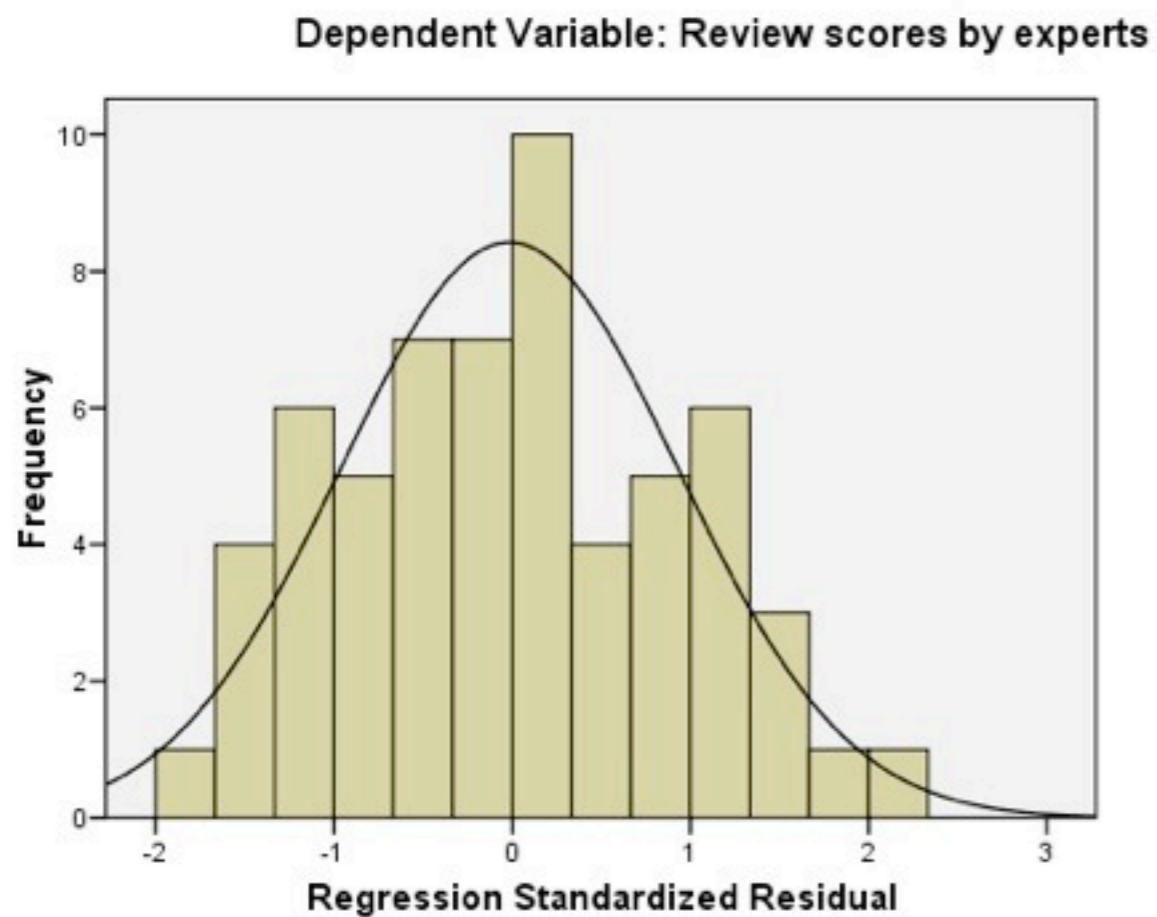
- We apply statistical methods to explore the key factors for game evaluation.
 - Descriptive analysis
 - Principal component analysis
 - Regression Analysis (model creation)

Regression Analysis

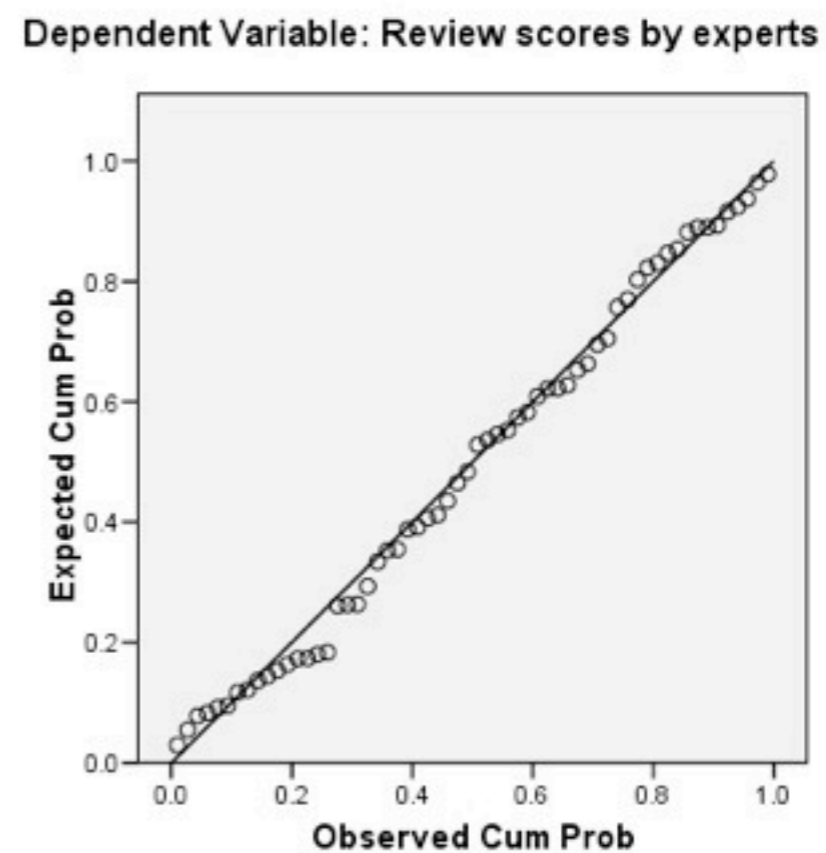
- External evaluation scores are used as the independent variables
- 36 factors are used in the regression
- Using backward regression technique to find the game evaluation model
- Adjusted $R^2 = 0.997$ Standard error of estimation is 4.26 (<10%)
- “Do these 10 variables reliably predict the evaluation score?”, ANOVA test showed that the model ***p-value (0.0000)*** is smaller than the ***alpha level (0.05)***; we can conclude, “**Yes**, these 10 variables reliably predict the evaluation score”

Regression Analysis (cont'd)

Histogram



Normal P-P Plot of Regression Standardized Residual



Game Evaluation Model

$$\text{PredictedScore} = 5.5A + 1.9B + 1.6C + 2.4D + 1.9E + 4.5F + 4.8G + 6.6H + 3.3I + 3.3J$$

Factors	Descriptions
A	Minimize control options
B	Follow the trends set by the gaming community to shorten the learning curve
C	Players should be able to save games in different states
D	Intermediate goals should be clear and presented at the appropriate times
E	Make game replayable
F	Should use visual and audio effects to arouse interest
G	Players should become less aware of their surroundings
H	Game should increase the players' skill at the appropriate pace as they progress through the game
I	Allow player to build content
J	Build as though the world is going on whether your character is there or not

Case Study

- To test the evaluation model, we used the model to evaluate 2 games to see how accurate of the prediction scores compare with the industrial score.
- We picked 2 games to evaluate with our model; Half Life 2 (PC), and The Elder Scrolls IV: Oblivion (Playstation 3).

Games	Predicted score	Industrial score
Half Life 2	98.4	96
The Elder Scrolls IV: Oblivion	96.5	93

Questions ?

