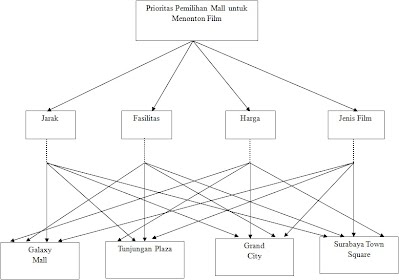
Contoh AHP

Menonton film di bioskop merupakan salah satu hiburan yang paling digemari oleh masyarakat, terutama untuk kalangan anak muda. Saat ini telah banyak berdiri mall-mall yang menyediakan fasilitas bioskop di hampir seluruh kota di Indonesia. Dalam kasus ini, yang akan dilihat adalah mall-mall yang menyediakan fasilitas bioskop yang ada di kota Surabaya. Untuk menentukan mall untuk menonton film diperlukan berbagai kriteria-kriteria. Berikut diberikan hirarki untuk pemilihan mall untuk menonton film.



**PENENTUAN MATRIK PENDAPAT**

**LEVEL 1 (FAKTOR)**

Penyusunan Matrik Pendapat

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TUJUAN | A | B | C | D |
| A | 1 | 9 | 8 | 7 |
| B | 1/9 | 1 | 1/4 | 1/3 |
| C | 1/8 | 1/4 | 1 | 1/3 |
| D | 1/7 | 3 | 3 | 1 |

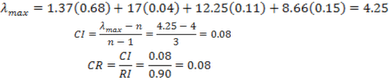
Pembobotan

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | A | B | C | D |
| A | 1 | 9 | 8 | 7 |
| B | 0.11 | 1 | 0.25 | 0.33 |
| C | 0.12 | 4 | 1 | 0.33 |
| D | 0.14 | 3 | 3 | 1 |
| TOTAL | 1.37 | 17 | 12.25 | 8.66 |

Normalisasi Bobot dan Penetuan Bobot Prioritas

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | A | B | C | D | Bobot Normal |
| A | 0.729927 | 0.529412 | 0.653061 | 0.808314 | 0.680178521 |
| B | 0.080292 | 0.058824 | 0.020408 | 0.038106 | 0.049407475 |
| C | 0.087591 | 0.235294 | 0.081633 | 0.038106 | 0.110656062 |
| D | 0.10219 | 0.176471 | 0.244898 | 0.115473 | 0.159757942 |

 Konsistensi

[](https://sites.google.com/site/banureaj/ta-jonas/ahp/contoh-kasus/rum1.png?attredirects=0)

**LEVEL III (ALTERNATIF KEPUTUSAN)**

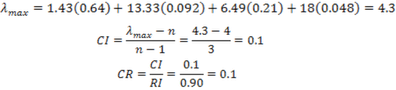
1.      Pembobotan Alternatif Keputusan Terhadap Faktor Jarak

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| A | GM | TP | GC | SUTOS |
| GM | 1 | 9 | 5 | 8 |
| TP | 1/9 | 1 | 1/3 | 3 |
| GC | 1/5 | 3 | 1 | 6 |
| SUTOS | 1/8 | 1/3 | 1/6 | 1 |
| TOTAL | 1.43 | 13.33 | 6.49 | 18 |

Normalisasi Bobot dan Penetuan Bobot Prioritas

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| A | GM | TP | GC | SUTOS | Bobot Normal |
| GM | 0.696864 | 0.675169 | 0.769586 | 0.444444 | 0.646515828 |
| TP | 0.076655 | 0.075019 | 0.050793 | 0.166667 | 0.092283287 |
| GC | 0.139373 | 0.225056 | 0.153917 | 0.333333 | 0.212919903 |
| SUTOS | 0.087108 | 0.024756 | 0.025704 | 0.055556 | 0.048280982 |

Konsistensi

[](https://sites.google.com/site/banureaj/ta-jonas/ahp/contoh-kasus/rum2.png?attredirects=0)

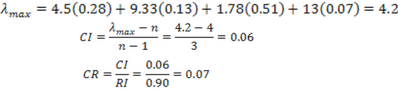
 2.      Pembobotan Alternatif Keputusan Terhadap Faktor Fasilitas

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| B | GM | TP | GC | SUTOS |
| GM | 1 | 4 | 1/3 | 4 |
| TP | ¼ | 1 | ¼ | 3 |
| GC | 3 | 4 | 1 | 5 |
| SUTOS | ¼ | 1/3 | 1/5 | 1 |
| TOTAL | 4.5 | 9.33 | 1.78 | 13 |

Normalisasi Bobot dan Penetuan Bobot Prioritas

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| B | GM | TP | GC | SUTOS | Bobot Normal |
| GM | 0.222222 | 0.428725 | 0.185393 | 0.307692 | 0.286008083 |
| TP | 0.055556 | 0.107181 | 0.140449 | 0.230769 | 0.13348884 |
| GC | 0.666667 | 0.428725 | 0.561798 | 0.384615 | 0.510451087 |
| SUTOS | 0.055556 | 0.03537 | 0.11236 | 0.076923 | 0.070051989 |

Konsistensi

[](https://sites.google.com/site/banureaj/ta-jonas/ahp/contoh-kasus/rum3.png?attredirects=0)

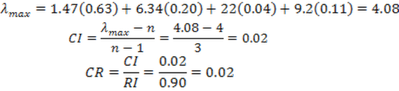
3.      Pembobotan Alternatif Keputusan Terhadap Faktor Harga

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| C | GM | TP | GC | SUTOS |
| GM | 1 | 5 | 9 | 6 |
| TP | 1/5 | 1 | 7 | 2 |
| GC | 1/9 | 1/7 | 1 | 1/5 |
| SUTOS | 1/6 | 1/2 | 5 | 1 |
| TOTAL | 1.47 | 6.34 | 22 | 9.2 |

Normalisasi Bobot dan Penetuan Bobot Prioritas

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| C | GM | TP | GC | SUTOS | Bobot Normal |
| GM | 0.680272 | 0.788644 | 0.409091 | 0.652174 | 0.632545116 |
| TP | 0.136054 | 0.157729 | 0.318182 | 0.217391 | 0.207339063 |
| GC | 0.07483 | 0.022082 | 0.045455 | 0.021739 | 0.041026407 |
| SUTOS | 0.108844 | 0.031546 | 0.227273 | 0.108696 | 0.119089415 |

Konsistensi

[](https://sites.google.com/site/banureaj/ta-jonas/ahp/contoh-kasus/rum4.png?attredirects=0)

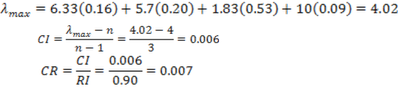
4.      Pembobotan Alternatif Keputusan Terhadap Faktor Jenis Film

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| D | GM | TP | GC | SUTOS |
| GM | 1 | 1/2 | 1/3 | 3 |
| TP | 2 | 1 | ¼ | 2 |
| GC | 3 | 4 | 1 | 4 |
| SUTOS | 1/3 | 1/2 | ¼ | 1 |
| TOTAL | 6.33 | 5.7 | 1.83 | 10 |

Normalisasi Bobot dan Penetuan Bobot Prioritas

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| D | GM | TP | GC | SUTOS | Bobot Normal |
| GM | 0.157978 | 0.035088 | 0.180328 | 0.3 | 0.168348368 |
| TP | 0.315956 | 0.175439 | 0.136612 | 0.2 | 0.207001596 |
| GC | 0.473934 | 0.701754 | 0.546448 | 0.4 | 0.530534031 |
| SUTOS | 0.052133 | 0.087719 | 0.136612 | 0.1 | 0.094116005 |

Konsistensi

[](https://sites.google.com/site/banureaj/ta-jonas/ahp/contoh-kasus/rum5.png?attredirects=0)

**MATRIK PENDAPAT GABUNGAN**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Tujuan | A | B | C | D | Bobot Normal | Peringkat |
| 0.68 | 0.049 | 0.11 | 0.15 |
| GM | 0.64 | 0.28 | 0.63 | 0.16 | 0.54 | 1 |
| TP | 0.09 | 0.13 | 0.2 | 0.2 | 0.11 | 3 |
| GC | 0.21 | 0.52 | 0.04 | 0.53 | 0.25 | 2 |
| SUTOS | 0.04 | 0.07 | 0.11 | 0.09 | 0.05 | 4 |

Bobot Gabungan dari masing-masing alternatif keputusan adalah:

 A.    Galaxy Mall (GM):

[https://sites.google.com/site/banureaj/_/rsrc/1321199847293/ta-jonas/ahp/contoh-kasus/rum6.png](https://sites.google.com/site/banureaj/ta-jonas/ahp/contoh-kasus/rum6.png?attredirects=0)

B.     Tunjungan Plaza (TP):

[https://sites.google.com/site/banureaj/_/rsrc/1321199847293/ta-jonas/ahp/contoh-kasus/rum7.png](https://sites.google.com/site/banureaj/ta-jonas/ahp/contoh-kasus/rum7.png?attredirects=0)

C.     Grand City (GC):

[https://sites.google.com/site/banureaj/_/rsrc/1321199847294/ta-jonas/ahp/contoh-kasus/rum8.png](https://sites.google.com/site/banureaj/ta-jonas/ahp/contoh-kasus/rum8.png?attredirects=0)

D.    Surabaya Town Square (Sutos):

[https://sites.google.com/site/banureaj/_/rsrc/1321199847294/ta-jonas/ahp/contoh-kasus/rum9.png](https://sites.google.com/site/banureaj/ta-jonas/ahp/contoh-kasus/rum9.png?attredirects=0)

Berdasarkan hasil dari analisa dari pemilihan mall untuk menonton film dengan berbagai criteria didapatkan hasil bahwa Galaxy Mall lah yang menjadi pilihan utama mall untuk menonton film.